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Review Article

Physical Inactivity among Café Attendees in Kuwait City

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Abstract

Background and Purpose: Physical inactivity is a major health problem, which became a burden and has increased due to our lifestyles becoming more sedentary. The high prevalence of physical inactivity in Kuwait was attributed to personal, social and environmental factors. The objectives of this study were to determine the prevalence of physical inactivity among café attendees in Kuwait City, explore their knowledge on the benefits of physical activity and determine the barriers towards physical activity in Kuwait.

Methods: Eight malls and 26 cafés were selected at random. A convenient sample of 1000 adult café attendees (≥ 18 years old) of Kuwait City malls in July 2018 were included in the study. An anonymous, self-administered questionnaire was used. Physical activity was measured based on the International Physical Activity Questionnaire (IPAQ). The data was analyzed by gender and the chi square test was applied where it was relevant.

Results: The majority (61.5%) of study participants were ≤ 30 years old. The prevalence of physical inactivity was 21.3% (19.5%, males; 23.1% females). The corresponding percentages of low physical activity were 37.2%, 30.6%, 43.7%, respectively. There was no statistically significant difference with respect to IPAQ score and time spent in the café. The majority (26.3%) defined physical activity as body movement (males 19.5%, females 32.2%). 43.6% did not specify the main benefit of Physical activity and 39.5% thought it is physical. Hot weather (49.8%) was the most perceived barrier to performing physical activity in Kuwait.

Conclusions and Recommendations: The majority of the café attendees were young and over half were physically inactive or had low activity with females having higher proportions. Time spent in cafés was not associated with physical inactivity. There was a lack of knowledge on the definition and benefits of physical activity. More efforts should target this vulnerable age group to increase their knowledge and practice of physical activity in Kuwait.

Keywords: *Physical Inactivity; Café Attendees; Kuwait City*

Introduction

Physical inactivity is a worldwide health problem that has become a major health issue recently. This problem became more evident as the lifestyle of people has changed to become more sedentary. According to recent literature, being physically inactive is a major risk factor for non-communicable diseases (NCDs).

Physical inactivity is a term used to identify people who do not get the recommended level of physical activity. The definition restricts the problem to the person himself; however, the outcomes affect the whole community as it increases the health burden of NCDs resulting in an economic burden on the government, which spends millions on treatment. In addition, the productivity of an inactive person will be less, and this unfortunately will delay the development of the country.

Kuwait suffers from a high prevalence of physical inactivity. This is mostly a result of sedentary lifestyle, hot weather and cultural factors. An additional factor that might contribute to physical inactivity in Kuwait is staying long hours at cafés that are becoming one of the most popular outings to many, particularly youth. People from different backgrounds and educational levels visit cafés several times per week with different durations. There are no publications on physical inactivity among café attendees in Kuwait.

Literature Review

Being sedentary or physically inactive is expending less than 1.5 kcal/kg/day. It is the equivalent of walking a little over two kilometers or 1.3 miles or approximately 3000 steps. For most people, that is a walk of 25 minutes or less [1]. Current levels of physical inactivity are partly attributed to time limitation, lack of support and lack of knowledge [2].

Globally, physical inactivity is the fourth leading risk factor for NCDs that implies 6% - 10% of the world's major NCDs [3]. Other risk factors are high blood pressure (13%), tobacco use (9%) and high blood glucose (6%).

A recent study conducted in 2018 reported that physical inactivity is the fourth leading cause of death worldwide, which equals approximately 3.2 million deaths each year [4].

Physical inactivity affects indirectly the economic state of the country. In 2013, the global health-care costs were 53.8 billion international dollars (INT$). In addition, physical inactivity related deaths contributed to $13.7 billion in productivity losses, and physical inactivity was responsible for $13.4 million disability-adjusted life years (DALYs) worldwide [5]. Furthermore, a global analysis of major NCDs, showed that the total costs in Kuwait in 2016 was 144320 (INT$) [6].

In 2006, a Canadian study was done to review the current evidence relating to physical activity in the primary and secondary prevention of a wide variety of chronic diseases and premature deaths from any cause. The study reported that regular physical activity was associated with a reduced risk of cardiovascular diseases among asymptomatic men and women. It also highlighted the effectiveness of physical activity in the secondary prevention of cardiovascular diseases. Furthermore, the study showed that exercise intervention for patients with diabetes are beneficial in improving glucose homeostasis [7].

In 2006, a study determined the prevalence of exposure to multiple modifiable risk factors, including smoking and physical inactivity among the Canadian population. The results of the study have shown that only 5.5% of Canadians were current smokers and physically inactive at the same time, whereas those who were smokers only or physical inactive only were 4.3% and 19.4 2, respectively [8].

A cross-sectional study done in 23 countries aimed to determine leisure-time physical activity in university students and its relation to health beliefs and risk awareness have shown that there was a positive association between the likelihood of physical activity and the

strength of beliefs regarding health benefits. However, knowledge about physical activity and health was low, with only 40 - 60% being aware that physical activity was a relevant risk for heart disease [9].

In 2005, a Brazilian study was conducted aiming to show the association between physical activity and mental health. It reported that physical activity has beneficial effects on psychiatric diseases such as depressive and anxiety disorders. Specifically, with respect to the association between physical activity and mood; evidence indicated that moderate exercise improved the mood (or helps maintain it at high levels), while intense exercise lead to its deterioration, and mood variations were more related to depression than to anxiety. Knowledge about the relationship between physical activity and mental health, or more specifically between physical activity and mood, is still limited [10].

In 2016, a study determined the levels of physical activity among Kuwaiti adults. It reported that 19.1% of the sample did not perform any physical activity and 38.1% had a low physical activity level, with no significant difference between males and females [11]. The most common perceived barriers of physical inactivity in Kuwait according to a recent study are hot weather (75.9%), work duties (71.21%), laziness (44.3%), lack of time (38.6%), family responsibilities (36.1%) and chronic diseases (33.33%) [11].

The burden of NCDs in Kuwait is increasing as well as physical inactivity's contribution as a leading risk factor. In addition, physical inactivity is the main cause of 25% of breast and colon cancers, 27% of diabetes and 30% of heart diseases [12].

Study Aim

To provide preliminary data on physical inactivity to the Kuwaiti health authorities that would assist them in their NCD control efforts.

Study Objectives:

1. To determine the prevalence of physical inactivity among café attendees in Kuwait City.
2. To determine the barriers that prevent café attendees from being physically active.
3. To explore café attendees' knowledge of physical inactivity and its health effects.

Materials and Methods

Type of study

A cross-sectional study was conducted in cafés located in Kuwait City malls.

Study population, sample size and sampling

The population of our study was all adult café attendees (≥ 18 years old) of Kuwait City malls during the first week of July 2018. The adult annual total population of café attendees in Kuwait City was 463000 persons in 2012 according to a survey project on coffee shops in Kuwait and business survey project [13]. Assuming that there is no difference between the monthly number of café attendees, the monthly number of people visiting cafés is 38,583.

A sample size of 2.5% was considered satisfactory based on the consultation made with the biostatician. This resulted in a sample size of 965 café attendees (38,583 x 2.5% = 964.6). However, 1000 persons were included in the study. The number of malls in Kuwait City is 24 and the cafés in these malls are 153. A two-stage sampling technique was used. From the mall list provided by the Ministry of

Commerce and Industry [17], one third of malls were selected at random resulting in eight malls. The eight malls were (Al Hamra Tower, Jaber Alahmed Cultural Center (JACC), Tilal Complex, Salhiyah Complex, Souq Al Mubarakeya, Al Tijaria Tower, Al Rayah and Souq Sharq).

The number of cafés in these eight malls are 77 (Table 1). A list of the cafés was done, and the cafés were selected at random proportional to the number of café's in each mall. Thus, Souq Al Mubarakeya had the highest number of cafes in the sample as it had almost one third of the cafés in the selected malls. A convenient sample of all the attendees of the selected cafés was taken until the required sample from each café was reached.

Selected Malls	No. of café's	No. of Cafés in Sample	No. of Participants	%	Selected Cafés*
Al Hamara Tower	5	2	65	6.5	Starbucks/Mim Café
Jaber Al Ahmed Cultural Center	11	4	143	14.3	Baker and spice/Haleeb o Heil /Dicaken/Ro caco
Tilal Complex	9	4	117	11.7	Crisp House/Waffle Boutique/Frowe/The factor in pastries
Salhiyah Complex	11	4	143	14.3	Fauchon/Dicaken/Starbucks/Lowrinz café
Souq Mubarakeya	25	8	325	32.5	Breo/Kispe-café/Starbucks/Testy Mnosha/Floor Lateiah/Alrowad/Mleah Ka/, Aldlaloh
Al Tijara Tower	7	3	91	9.1	Suny Side Up/Joye/Mines 11
Al Rayah Tower	3	1	39	3.9	Arabica
Souq Sharq	6	2	77	7.7	Starbucks/Haagen-Dazs
Total	77	28	1000	100	

Table 1: *The selected cafés in each mall and sample size.*

Data sources/collection

Prior to data collection, agreement to conduct the study was taken from the administration of the malls and cafes. All café attendees of the selected cafes during the first week of July 2018 were included in the study. Two researchers were assigned to a specific mall to distribute the questionnaire (Appendix 1) and the consent form.

Study instrument

A self-administered anonymous questionnaire was designed using the short version of the International Physical Activity Questionnaire (IPAQ) [14]. The questionnaire was in both languages, Arabic and English.

The questionnaire included sociodemographic variables (Age - nationality - gender - educational level - occupation). Occupation was classified according to Barker and Hall (1991). Both high and low professionals were grouped into professionals (lawyers, doctors, executive mangers, teachers, and other). Skilled and semi-skilled professions were grouped under one category (technicians, accountant, assistant engineer, cashiers and other) [15]. Unskilled workers included housemaids, divers, laborers and security guards. Furthermore, those who remained unclassified as parts of the above, were placed into separate categories which included unemployed, homemakers, students and retired. There were questions related to time, frequency and duration of café visit as well as smoking behavior. Knowledge

of the participants on the definition and benefits of physical activity was determined by two open-ended questions. The barriers towards performing physical activity in Kuwait were determined by using a multiple-choice question based on the literature [11].

Levels of physical activity were determined based on the IPAQ scoring protocol. Thus, physical activity levels based on IPAQ were categorized as low activity, moderate activity or high activity depending on the metabolic equivalent of task (MET) score. Low activity level: no activity is reported or some activity is reported but not enough to meet moderate or high categories. Moderate activity level: either of the following 3 criteria:3 or more days of vigorous activity of at least 20 minutes per day or 5 or more days of moderate-intensity activity and/or walking of at least 30 minutes per day or 5 or more days of any combination of walking, moderate-intensity or vigorous-intensity activities achieving a minimum of at least 600 MET-minutes/week. High activity level: any one of the following 2 criteria: vigorous-intensity activity on at least 3 days and accumulating at least 1500 MET-minutes/week or 7 or more days of any combination of walking, moderate- or vigorous-intensity activities accumulating at least 3000 MET-minutes/week.

MET score we calculated according to the following manner based on IPAQ scoring protocol: The equation to determine the MET score: (MET level x minutes of activity/day x days per week). The specific MET levels are the following: Walking = 3.3 METs, Moderate Intensity = 4.0 METs, like carrying light loads, bicycling at a regular pace, or doubles tennis. Vigorous Intensity = 8.0 METs, like heavy lifting, digging, aerobics, or fast bicycling.

The IPAQ protocol considers people who do not perform any type of physical activity as having low activity levels. In order to get more comprehensive data on physical inactivity in our study sample, physical activity was also presented as being active (high, moderate, low) or inactive (no physical activity at all).

Inclusion criteria: All café attendees ≥18 years old who went to the selected cafés during the first week of July and who were able to read and write Arabic or English was included in the study.

Exclusion criteria: Café staff and those who attended cafés for the first time were excluded.

Statistical analysis

The data collected was entered into the Statistical Package for Social Sciences (SPSS). Data was revised for coding and entry errors. The mean age was calculated. Analysis included frequencies and cross-tabulations by gender in which chi-squared test was used to detect for differences, and a p-value of ≤ 0.05 was considered statistically significant. Furthermore, IPAQ score was cross-tabulated with time spent in café.

Ethical consideration

Ethical approval of the Research and Ethics Committee at the College of Medicine and Medical Sciences was obtained prior to the start of the study. Approval of the administration of the selected malls and cafés was taken. The consent form ensured participants that the questionnaire is anonymous and that they are able to withdraw from the study at any time.

Pilot study

A pilot study was done on 25th June 2018. A total of 30 questionnaires were distributed, which led to some minor modifications being done in the questionnaire.

Results

The sociodemograhpic data of café attendees can be seen in table 2. Nearly half of those attending cafés are in the age group of 18 - 24 years while the lowest number attendees (9%) where in the middle aged group which is between 35 - 39 years. Thus the young were attending the cafés more than the other age groups. It can also be seen that those under 30 years of age which were between 18 - 29 years repreasent almost (61.5%) of all the café attendees. However, only (15%) were above the 40 years old, and among all of the attendees (88.6%) were Kuwaitis. Other nationallities (other GCC citizens, Arabian, European, others) only represented (11.4%). Females participants constituted (50.5%) and males participants constituted (49.5%) which shows that both genders were attending the café at almost equally, females being slightly more. This Moreover, the majorty of the particapants were educated and were holders of either a bachelors degree or above. This is followed by those having middle and high school degrees, and laslty those who have a diploma are the least in the sample. Over one third (36.2%) of those attending café were students. A very low (3%) proprtion of café attendees were homemakers. In addition, retired/umemployed and homemakers represent only (10.8%) of the particpants, while people with jobs (skilled and professional) and students represent (89.2%) of all participants.

Age n = 1000	**No.**	**%**
18 - 24	462	46.2
25 - 29	153	15.3
30 - 34	145	14.5
35 - 39	90	9.0
≥ 40	150	15.0
Total	1000	100
Nationality n = 1000		
Kuwaiti	886	88.6
Non-Kuwaiti	114	11.4
Total	1000	100
Gender n = 1000		
Male	495	49.5
Female	505	50.5
Total	1000	100
Education Level n = 1000		
Middle and high school	327	32.7
Diploma	175	17.5
Bachelors and above	498	49.8
Total	1000	100
Occupation n = 1000		
Professional	274	27.4
Skilled	256	25.6
Student	362	36.2
Homemaker	30	3
Retired	37	3.7
Unemployed	41	4.1
Total	1000	100

Table 2: *Sociodemographic data.*

Table 3 shows the distribution of the selected café's mainly located in Kuwait City. (61.5%) are only cafés and (38.5%) are cafés and restaurants as well. (69.3%) of the cafés allow outdoor smoking, while the rest do not allow it at all. In the 8 malls where the study was conducted, the highest amount of sample was obtained from Almubarakiya mall (32.1%). Followed by Salhiya complex (14.2%), JACC mall (13.6%), Tilal Complex (11.7%), Altijara mall (9.2%), Souq Sharq (8.8%), and Alhamra mall (6.4%). Whereas the least was from Alraya Tower (4%) where only one café was chosen.

No	Mall	Café	Café Type	Chain	Smoking	Participants	
						n	%
1	Al Hamra	Mim Café	Coffee shop/Restaurant	No	Not Allowed	34	3.4
2		Starbucks	Only Coffee Shop	Yes	Not Allowed	30	3.0
		Total				64	6.4
3	Mubarakiya	Aldlaloh	Only Coffee Shop	No	Allowed	44	4.4
4		Alrowad	Only Coffee Shop	No	Allowed	17	1.7
5		Breo	Only Coffee Shop	No	Not Allowed	60	6.0
6		Floor Lateiah	Only Coffee Shop	No	Allowed	32	3.2
7		Kispe-café	Only Coffee Shop	No	Allowed	81	8.1
8		Mleah O Ka	Only Coffee Shop	No	Allowed	55	5.5
9		Testy Mnosha	Only Coffee Shop	No	Allowed	36	3.6
		Total				321	32.1
10	Al Rayah Tower	Arabica	Coffee shop/Restaurant	Yes	Allowed	40	4.0
		Total				40	4.0
11	Al Tijara	Joye	Coffee shop/Restaurant	Yes	Not Allowed	41	4.1
12		Mines 11	Coffee shop/Restaurant	No	Not Allowed	24	2.4
13		Sunny Side Up	Coffee shop/Restaurant	No	Not Allowed	27	2.7
		Total				92	9.2
14	JACC	Baker and Spice	Coffee shop/Restaurant	Yes	Allowed	60	6.0
15		Dicaken	Coffee shop/Restaurant	Yes	Allowed	23	2.3
16		Haleeb O Heil	Coffee shop/Restaurant	Yes	Allowed	23	2.3
17		Ro Caco	Only Coffee Shop	Yes	Allowed	30	3.0
		Total				136	13.6
18	Salhiyah Complex	Dicaken	Coffee shop/Restaurant	Yes	Not Allowed	11	1.1
19		Fauchon	Coffee shop/Restaurant	Yes	Allowed	42	4.2
20		Starbucks	Only Coffee Shop	Yes	Not Allowed	89	8.9
		Total				142	14.2
21	Souq Sharq	Haagen-Dazs	Only Coffee Shop	Yes	Allowed	19	1.9
22		Starbucks	Only Coffee Shop	Yes	Allowed	69	6.9
		Total				88	8.8
23	Tilal	Crisp House	Only Coffee Shop	No	Allowed	34	3.4
24		Frowe	Only Coffee Shop	No	Allowed	17	1.7
25		The Factor in Pastries	Only Coffee Shop	No	Allowed	33	3.3
26		Waffle Boutique	Only Coffee Shop	No	Allowed	33	3.3
		Total				117	11.7
		Grand Total				1000	100

Table 3: *Distribution of malls.*

The participants were also asked about physical activity in their occupation. Those who had physical activity in their occupation were only (23.1%) with a lower proportion among females (17.0%) compering with males (29.4%). Males experienced almost double the percentage of females with respect to physical activity in the occupation. The individuals were also asked about the type of physical activity they experienced either being low, intermediate, high, and those who did physical activity but did not mention the type of the physical activity were under the unspecified group. The corresponding answers for males were (42.7%), (18.2%), (21.7%), and (17.5%) respectively. However, the females answered respectively with (77.6%), (9.4%), (1.2%), and (11.8%). our study results shows that males in general had higher physical activity than females in their occupation.

The total number of respondents in this study was 1000. In relation to smoking, (31.7%) of the study participants were current smokers. The most common types of smoking were cigarettes (21.3%) and shisha(waterpipe) (9.8%). Only 0.2% smoked the pipe. Smoking status was compared with age., The age groups 18 - 24 years had the highest (38.4%) and 40 - 70 years the lowest percentage (15.4%) of smokers. Furthermore, the age groups of 18 - 24 and 40 - 70 also had the highest and lowest percentages of smoking in cafés at (41.3%) and (12.1%), respectively. In terms of smoking status and gender, the proportion of males who confirmed to be current smokers was (58.6%) whereas the proportion of females who had confirmed to be smokers was much lower (5.0%). In addition, of those who had confirmed to be smokers, (70.7%) reported smoking in the café. With regards to physical inactivity among smoker and non-smoker participants, physical inactivity was lower among smokers (19.0%) than non-smokers (22.4%), but higher (25.1%, 16.8%, respectively) with respect to physical activity.

Figure 1 shows the categories of physical activity in relation to gender based on IPAQ score. Half of the males and (66.8%) of the females had low level of physical activity. The corresponding levels of moderate physical activity were (24.0%) and (20.3%), respectively. Only (25.9%) of males and (12.9%) of females had high activity levels. Thus, (58.5%) of the participants had low physical activity level, with a significant difference between male and female ($P \leq 0.001$). (21.3%) were not involved in any type of physical activity, hence inactive of which males (19.5%) and females (23.1%). Most of the café attendees involved in our study did not meet the recommended physical activity level and were considered as low active. Males are more significantly physically active than females especially when referring to high and moderate physical activity types. The average time for performing vigorous as well as moderate activity was one day per week. However, the average days for walking were 3 days per week.

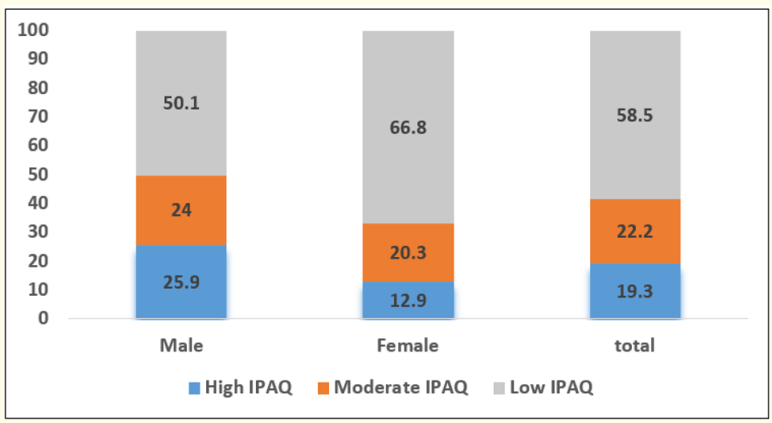

Figure 1: *Categories of physical activity according to IPAQ score.*

Figure 2 shows the relationship between IPAQ score and the usual time spent at the café. Sitting is one the most common sedentary behaviors of people. When time spent sitting at the café was examined by the IPAQ score, it showed that (18.7%) of the participants who spent the least amount of time at the café (< 30 minutes) performed high physical activity, while (21.9%) performed moderate physical activity and the rest (59.4%) low physical activity. The corresponding percentages for those who spent 30 - 60 minutes were (17.4%), (22.6%) and (60%), respectively. While (41.6%) of the participants who spent more time in the café tend to perform high physical activity, (21%) of them spent 60-120 minutes and (20.6%) spent more than 120 minutes in the café. However, the differences were not statistically significant (P ≤ 0.001).

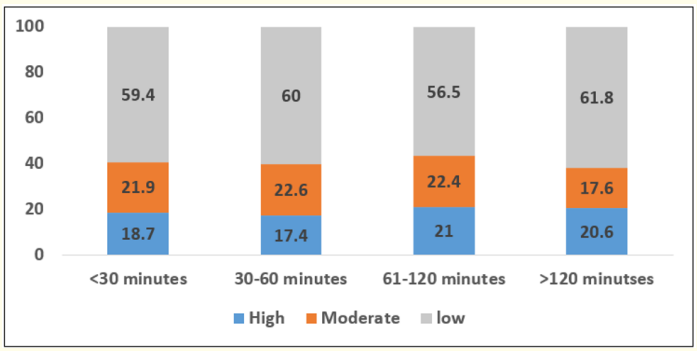

Figure 2: *IPAQ score in relation to the usual time spent in the café.*

Figure 3 shows that (49.8%) of the participants considered hot weather as the main barrier that prevents residents in Kuwait to perform physical activity. A higher proportion of females (54.3%) than males (45.4%) considered it a barrier. Lack of support was reported by (16.8%) with more males (19.3%) than females (14.4%) considering it a barrier. Lack of time was also a barrier mentioned by (13.9%) of the participants and lack of support, lack of support 16.8% and lack of appropriate facilities (13.7%). There was no statically significant deference between both sexes (P ≤ 0.001).

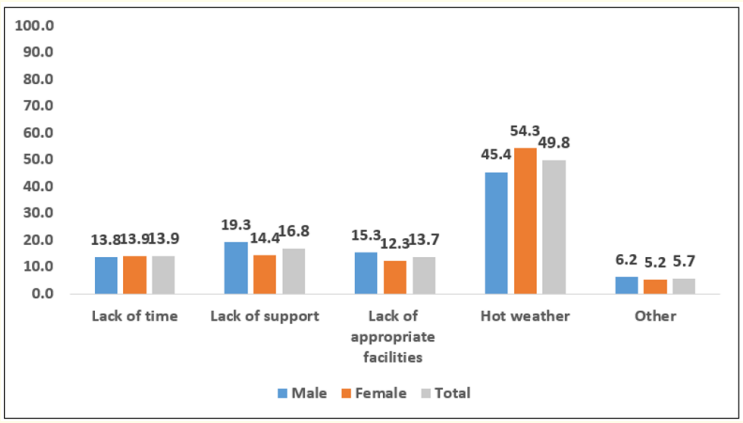

Figure 3: *Barriers of physical activity in Kuwait.*

Table 4 shows the participants' knowledge about the definition of physical activity and its effect on health. The definition of physical activity varied according to study participants. The following definitions were provided by the study participants; body movement and walking, exercise, physical fitness, body movement and exercise, anything that makes you tired, anything that enhances body circulation and anything that enhances circulation and body movement. The corresponding proportions by definition in both sexes were (26.3%), (20%), (17.3%), (17.1%), (9.7%,) (6.9%) and (2.7%) respectively. There were differences by gender with respect to the definition of physical activity. Exercise (21.6%) was the most reported followed by body movement and walking (19.6%) among males. In contrast, body movement and walking came first (32.3%) among females followed by exercise (18.6%). The difference in the knowledge of the definition of physical activity by gender was not statistically significant.

Physical Activity Definition	Gender				Total	%
	Male		Female			
	No.	%	No.	%		
Body movement and walking	97	19.6	163	32.3	263	26.3
Enhance the circulation	41	8.3	28	5.6	69	6.9
Enhance the circulation and body movement	7	1.4	19	3.8	27	2.7
Body movement and exercises	84	17.0	86	17.0	171	17.1
Exercises	107	21.6	94	18.6	200	20.0
Anything that makes you tired	64	12.9	35	6.9	97	9.7
Physical fitness	95	19.2	80	15.8	173	17.3
Total	495	100	505	100	1000	100
Physical Activity Benefit						
Physical benefit	175	35.4	219	43.4	395	39.5
Mental benefit	17	3.4	12	2.4	29	2.9
Physical and mental benefit	69	13.9	71	14.0	140	14
Useful but unspecified	234	47.3	203	40.2	436	43.6
Total	495	100	505	100	1000	100

Table 4: *Definition and benefit of physical activity.*

Benefits of being physically active, were also asked in the questionnaire. The participants also answered with a variety of answers thus we grouped the most prevalent answers from the participants into four groups which are as follows: useful but unspecified, physical benefit, physical and mental benefit, and mental benefit. Based on our results, most of the participant's opinions about the benefits of physical activity were under the group of useful but unspecified with (43.6%) and physical benefits with (39.5%), while the groups of physical and mental benefit, and mental benefit coming in last with (14%) and (2.9%) respectively. We can look more closely and observe that there was a slight difference in the percentages between males and females. Regarding males, useful but unspecified is seen as the first choice with (47.3%) and physical benefits in second with (35.4%). On the other hand, most the females' opinion about physical activity benefits were physical activity benefit in first with (43.4%) and useful but unspecified in second place with (40.2%). However, the total percentage of both males and females and in males specifically and females specifically all of them were approximately the same about physical & mental benefit and mental benefit was the least chosen.

Discussion

According to WHO NCDs are estimated to be responsible for (72%) of all deaths in Kuwait due to many risk factors, mainly physical inactivity (65%) and obesity (60%) [17].

Our study found that (21.3%) of the total sample did not perform any physical activity, higher proportion of females (23.1%) than males (19.5%) were inactive. This difference can be attributed to cultural and social factors where more restrictions and responsibilities are faced by women in Kuwait. Further, (78.5%) performed physical activity of any kind as for the differences in gender with respect to the levels of physical activity based on IPAQ score, a higher proportion of females had low physical activity levels (66.8%) than males (50.1%). The high proportion of the attendees having low levels of physical inactivity (58.5%) in both sexes combined were in line with what has been previously reported in Kuwait [11]. The results of that study, which was conducted in 2016 that estimated levels of physical activity among Kuwaiti adults and the perceived barriers reported that (19.1%) of the study sample did not perform any physical activity, a slightly lower than ours, and (38.1%) had a low level of physical activity, (37.4%) male and (38.8%) female. (55.0%) had moderate level of physical activity and (6.9%) of the sample had high level of physical activity, (10.2%) male and (3.6%) female [11]. The difference can be attributed to the population as our study included Kuwaiti and non-Kuwaiti while the other had Kuwaiti only. Further, the setting was cafes in this study compared to primary healthcare centers in the other. Age could have contributed as well as the youngest age in our study was 18 compared to 21 years in the other study.

There is an inverse association between time spent in the café and physical activity. Prolonged sitting in the café does not really seem to prevent participants to perform any type of physical activity as the results have shown that people who spend more time at the café tend to be highly physically active than those who spend less time, the reason for this is not clear because there was no statistical difference in their knowledge. However, we think they try to compensate due to prolong sitting hours.

According to world health survey which was conducted by minister of health in 2013 the most common methods of tobacco consumption in Kuwait was cigarettes and shisha. The survey reported that the percentage current smokers (ages 18 and above) were (38.3%) for men and (2.3%) for women. Compared to our research which shows a relative similar result, (31.7%) of the study participants were current smokers among those the proportion of males was (58.6%), whereas the proportion of females was much lower (5.0%) [18].

A recent study estimated that there was no improvement in global levels of physical activity between 2001 and 2016. Worldwide, around 1 in 3 women and 1 in 4 men do not do enough physical activity to stay healthy. Levels of insufficient physical activity are more than twice as high in high-income countries compared to low-income countries and increased by (5%) in high-income countries between 2001 and 2016 [16]. Kuwait, a high income country had the highest prevalence of physical inactivity (67.0%) and Saudi Arabia the third (53.0%). This high prevalence of physical inactivity in Kuwait would result in the increase of the NCDs health and economic burden.

Our study results showed that hot weather is the main barrier to physical activity (49.8%) in Kuwait. It was followed by lack of support (16.8%), lack of time (13.9%), lack of appropriate facilities (13.7%) and other barriers (5.7%) including lifestyle, no physical activity promotion campaign, lack of awareness, lack of transport, time management and job or family commitment. Similar to our findings, weather was the most prevalent environmental barrier to physical activity (75.9%) in a recent study in Kuwait. Work (71.21%), laziness (44.3%), lack of time (38.6%) and presence of chronic disease (33.3%) were the most common cited barriers [7].

The strength of this study is that it is the first to be conducted on café attendees in Kuwait examining physical activity. There are several limitations including that it was conducted in July were many Kuwaiti are abroad. Further the IPAQ questions were related to last week which fell in June where the weather conditions in Kuwait were not suitable for performing physical activity. Further café attendees are usually limited to those who can afford going to these places.

Conclusion and Recommendation

The majority of the café attendees were below 30 years old and over half were physically inactive or had low activity levels, with females having higher proportions. Time spent in cafés was not associated with physical inactivity. There was lack of knowledge of the definition and benefits of physical activity. Hot weather was considered the major barrier for performing physical activity.

We recommend that the Kuwaiti authorities to target the vulnerable age group to increase their knowledge and awareness of the benefits of physical activity. Schools and universities should encourage physical activity among students and emphasize its benefits. More efforts should be done to provide suitable public places for the population to perform physical activity. Physical inactivity should be monitor in Kuwait.

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