

Study of Physical Fitness Status and Mode of Exercise Pursued by Citizens of Delhi: A Qualitative Analysis

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Abstract

The purpose of the present study was to analyse the Physical activity modes pursued by citizens of Delhi to achieve the Fitness. The sub-objective of the study was to also gauge the awareness amongst the citizens of Delhi with reference to the Outdoor Gyms, Government Yoga Centres and DDA Sports Complexes in Delhi and NCR. The variables selected for the present study were Physical fitness and modes of Physical activity. A self-developed questionnaire was designed to collect the information. The study was delimited to 201 subjects (Male & Female), who engage in any physical activity i.e. Walkers from nearby parks, open and Indoor Gym, Yoga centres, Dance and aerobics classes, etc. in Delhi. The data was collected from Delhi Parks, Aerobics and Yoga centres. The data was further computed and analysed by descriptive and percentage method. 24.87% of the Delhi population pursued activities in the indoor and outdoor Gym, 23.88% have adopted brisk walking and jogging and exercise at home, 9.95% use the Running & Bhangra Aerobics/Dance/Cross fit or other programme, 5.97% follow Yoga and other exercise, 2.97% are engaging in particular sports (Cricket, Tennis and Badminton etc.). However only 1.49% are engaging in Weight Training/Cuts & Curve. Surprisingly 30.87% of the population do not pursue in any physical activity. Further, 37.31% respondents were actively involved in Physical activity programme from last 5 years, 11.94% since last one year, 19.90% involved from last six months, and 17.91% involved from last one month. However 12.94% of population do not pursue in any physical activity. In respect to awareness about open Gym and Morarji Desai National Institute of Yoga, majority of the population are aware about them but for open gym they all wants one qualified trainer who can guide them correctly and also help to maintain the open Gym machines of all outdoor gyms. For significance of the study, the data of the present study will help to construct the Policies for new planning in the Community Services in regard to Physical fitness and Health for Delhi and NCR.

Key words: Brisk walking, walkers, Outdoor Gym, and Shooting ball

Introduction

In contemporary India, there is an increase in the life expectancy age of Indians and a comparative decrease in incidences of early-death which can also be attributed to timely medical intervention. WHO World Statistics Report 2016 found that in 2015, life expectancy at birth was 68.3 years in India which breaks down to 66.9 years for men and 69.9 for women as compared with an average age of 66 years in 2013 and 58 years in 1990.

Life expectancy at birth improved in India from 59.7 years in 1990 to 70.3 years in 2016 for females, and from 58.3 years to 66.9 years for males. (C, 1991) There were, however, continuing inequalities between states, with a range of 66.8 years in Uttar Pradesh to 78.7 years in Kerala for females, and from 63.6 years in Assam to 73.8 years in Kerala for males in 2016. (Caspersen C J)

The per person disease burden measured as DALYs (Disease-Affected Life Years) rate dropped

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by 36% from 1990 to 2016 in India, after adjusting for the changes in the population age structure during this period. But there was an almost two-fold difference in this disease burden rate between the states in 2016, with Assam, Uttar Pradesh, and Chhattisgarh having the highest rates, and Kerala and Goa the lowest rates. While the disease burden rate in India has improved since 1990, it was 72% higher per person than in Sri Lanka or China in 2016. (Hamasaki, 2016) The under-5 mortality rate has reduced substantially from 1990 in all states, but there was a four-fold difference in this rate between the highest in Assam and Uttar Pradesh as compared with the lowest in Kerala in 2016, highlighting the vast health inequalities between the states. (Femke De Meester., 2008)

Objectives of the study:

1. To know the present picture of Delhi heights in respect to Physical activity.
2. To know the means adopted by Delhi heights for improve their Physical fitness.

3. To know the awareness among the Delhi heights about Outdoor Gym, Government Yoga Centres and DDA Sports Complex in Delhi and NCR.

Delimitation of the study:

The study was delimited to Delhi and NCR region only.

§ The study was further delimited to 201 subjects (Male & Female), who engage in any physical activity i.e. Park, open and Indoor Gym, Yoga centres, Dance and aerobics classes, Walker from nearby park etc.

Procedure

For purpose of the study, 201 (Male and Female) sample, age ranging from 19-60 years were selected randomly from Delhi and NCR open park Gym, Yoga centres and stadiums. The data was collected by self-developed questionnaire. The questionnaire was design into two parts one is multi-optional questions format and other one is open ended category. The data was computed and analysis by percentage statistics method.

Result and analyses

Table No. 1 Have you been diagnosed with or advised of any of the following:

S.No.	Statements	N	Yes	No	No response
a.	History of heart problems, chest pain or stroke?	201	5	192	04
b.	Increased blood pressure (hypertension) or low blood pressure (hypotension)	201	36	164	01
c.	Difficulty with physical exercise	201	34	166	01
d.	History of breathing/lung problems (asthma, COPD, emphysema)	201	10	190	01
e.	Muscle, ligament, tendon, joint (shoulder, knee, hip, ankle, wrist)	201	30	170	01
f.	Arthritis, Rheumatoid arthritis, osteoporosis	201	23	177	01
g.	Diabetes (type I or II), thyroid disorder or hypo/ hyperglycaemia	201	15	184	02
h.	Cigarette smoking habit / Alcohol Consumption	201	23	177	01
i.	Obesity (more than 20 percent over ideal weight)	201	13	187	01
j.	Frequent headaches (migraine, cluster)	201	28	170	01
k.	Depression, bipolar disorder, undue stress	201	43	157	01
l.	Any other	Lack of sleep and concentration problem, Spine problem, Hypertension, Joint stiffness, Suffering from thyroid etc.			

In table no. 1, when asked about the diagnosis status from heart problems, chest pain or stroke 192 said no/05 said yes and 04 didn't responded, for increased blood pressure (hypertension) or low blood pressure (hypotension) 164 said no/36 said yes and 01 didn't responded, for Difficulty with physical exercise 166 said no/34 said yes and 01 didn't responded, for History of breathing/lung problems (asthma, COPD, emphysema) 190 said no/10 said yes and 01 didn't responded, for Muscle, ligament, tendon, joint (shoulder, knee, hip, ankle, wrist) injury 170 said no/30 said yes and 01 didn't responded, for

injury or any previous injury still affecting, for Arthritis, Rheumatoid arthritis, osteoporosis 177 said no/23 said yes and 01 didn't responded, for Diabetes (type I or II), thyroid disorder or hypo/hyperglycaemia 184 said no/15 said yes and 02 didn't responded, for Cigarette smoking habit / Alcohol Consumption 177 said no/23 said yes and 01 didn't responded, for Obesity (more than 20 percent over ideal weight) 187 said no/13 said yes and 01 didn't responded, for Frequent headaches (migraine, cluster) 170 said no/28 said yes and 01 didn't responded.

Table No. 2 Are you taking any medications at this point in time?

N	Yes	No	No response
201	39	158	04

In table no. 2, when asked about procuring any medication at this time, out of 201 subjects a maximum of 153 said no, 39 replied Yes, 04 didn't responded to any of the options.

Table No. 3. How many of the following characterise you?

Over-consumption of fast foods (like Pizza, Burger, Donut, Cola) Fried/Fatty items, Sweets	Less intake of healthy food items (Green Vegetables, Dal, Nuts, Eggs etc.)	Reduced activity level	Feeling tired quickly	Brain 'fog' instances (not able to think clearly all the time)
30	46	63	67	11

In table no. 3, when asked about their characterization a maximum frequency was observed on 67 believed that they feel tired quickly, 63 believed that they have reduced activity level, 46 considered that they have Less intake of healthy food items (Green Vegetables, Dal, Nuts, Eggs etc.) and finally 11 believed that Brain 'fog' instances (not able to think clearly all the time) happens to them.

Table No. 4 You have been actively involved in physical activities since:

Particulars	Past month	Six months	Past Year	Past two-five years	Past ten years	Any other
N	36	40	24	44	31	24

In table no. 4, when asked about their physical activity involvement status, out of 201 subjects a maximum of 44 said from past two years, 40 said from six months, 31 from past ten years, 24 from past one year and 24 responded to any other option.

Table No. 5 What is the Physical Fitness Programme that you are engaged with presently and where?

Running & Bhangra Aerobics/ Dance/Cross fit or other programme	Gym (Open & Indoor)	Walking/ Jogging/ Exercise by Self at Home	Weight Training/Cuts & Curve	Sports Participation Cricket Tennis Badminton etc.	Yoga	No activity
20	50	48	03	6	12	62

In table no. 5, when asked about the present status of physical fitness programme been carried out, out of 201, 50 replied as they are going to Gym (Open & Indoor), 48 said Walking/ Jogging/ Exercise by Self at Home, 39 were not doing any activity, 20 are doing Running & Bhangra Aerobics/ Dance/Cross fit or other

programme, 12 are engaged in yoga, 06 are doing Sports Participation Cricket, Tennis, Badminton etc, 03 are doing Weight Training/Cuts & Curve and 62 did not pursue in any physical activity.

Table 6 Are you aware that the following are activities that can improve fitness levels at varying intensities?

<i>S. No.</i>	<i>Particulars</i>	<i>Yes</i>	<i>No</i>
a.	Brisk Walking	160	37
b.	Jogging	186	11
c.	Skipping	168	29
d.	Dancing	167	30
e.	Freehand Exercise	152	45
f.	Household chores	143	54

In table no. 6, when asked whether they are aware about the activities that can improve fitness levels at varying intensities, for brisk walking 160 said yes and 37 said no, for jogging 186 said yes and 11 said no, for skipping 168 said yes and 29 said no, for dancing 167 said yes and 30 said no, for freehand exercise 152 said yes and 45 said no and finally for household chores 143 said yes and 54 said no.

Table No. 7 Are you aware that the government has installed outdoor gyms in several public parks for all?

N	Yes	No	Uncertain	Do not know	No response
201	178	15	3	2	3

In table no. 7, when asked about the level of awareness about the government installed outdoor gyms in several public parks, out of 201 subjects a maximum of 178 said yes, 15 said no, 03 were uncertain, 02 did not know and 03 does not responded.

Table No. 8 Do you know that authorised government yoga centres like Morarji Desai National Institute of Yoga is running in Delhi?

N	Yes	No	Uncertain	Do not know	No response
201	86	95	7	10	3

In table no. 8, when asked about the authorised government yoga centres like Morarji Desai National Institute of Yoga been present in Delhi, out of 201 subjects a maximum of 95 said no, 86 said yes, 10 do not know, 07 were uncertain and 03 does not responded.

Table No. 9 Do you know that authorised Delhi Development Authority centres, running playing facilities on the basis of pay-and-play, are available in Delhi?

N	Yes	No	Uncertain	Do not know	No response
201	95	78	19	6	3

In table no. 9, when asked about the authorised Delhi Development Authority centres, running playing facilities on the basis of pay-and-play been available in Delhi, out of 201 subjects a maximum of 95 said yes, 78 said no, 19 were uncertain, 06 did not know and 03 does not responded.

Table No. 10 Do you know that it is important to participate in a moderately-intense activity, for at least 30 minutes-five times a week, for any fitness benefit to accrue?

N	Yes	No	Uncertain	Do not know	No response
201	145	40	9	2	5

In table no. 10, when asked about the importance of participating in a moderately-intense activity, for at least 30 minutes-five times a week, for any fitness benefit to accrue, out of 201 subjects a maximum of 145 said yes, 40 said no, 09 were uncertain, 02 did not know and 05 does not responded.

Q11. Suggest improvements/inclusions in the intervention methods vis-à-vis specific programmes, equipment, guidance or any other that you feel is important to achieve the goal of a 'Fit You'.

This is an open ended question, and the following suggestion was recorded:-

- i. Guidance should be provided in park & open gym.
- ii. Open gym should be covered by roof or any other type of shades.
- iii. They can recruit trainer in outdoor gyms.
- iv. Equipment of open gym should be more maintained.
- v. Maintenance is required to use outdoor gym equipment.
- vi. Some suitable programme for youngsters should be brought up like the open gym concept. Open gyms are good but not suitable for us. Same concept of free gym should be considered for youth.
- vii. I feel there should be more equipment introduce in all the open gym, so that ladies & other family members who can't allowed, can use the facility.
- viii. It is important to keep the equipment's placed in a park in professional trainer, because without knowledge of equipment is harmful.
- ix. More equipment is installed in public parks.
- x. Doing exercise daily keeps you fit and healthy open gyms are convenient and easily available in nearby parks.
- xi. Outdoor gyms are easily available now days one should spend at least 90 minutes in exercise daily to be healthy and fit.
- xii. Open Gyms should be installed in more and more in park.
- xiii. Guidance in an open park Gym.
- xiv. Guidance in a yoga open gym in nearby parks.
- xv. For outdoor gyms supervised equipment as required.
- xvi. The outdoor gyms are good but they don't provide exercise for all the body parts, so keeping in my mind the full body equipment more machines need to be installed.
- xvii. Adding some instructor will be beneficial, also providing outdoors gym in more near parks to our home.
- xviii. Outdoor Gym is the best physical fitness if we can broad and maintain the machine and provide

yoga classes in park it should be fruitful for the all groups of people low as well as medical class people It is the best park of the people.

- xix. Access to these programme like outdoor gyms pay and play, government yoga centres etc should be eased for general public.
- xx. Guidance should be provided in park & open gym.
- xxi. Government should provide more parks, because there is no park nearby my home.
- xxii. Washroom must be available.
- xxiii. Paper, dustbin and washroom should be provided.

Discussion on findings

The study is a survey study aiming towards analyzing the awareness among the people regarding the need of physical activeness and the means adopted by them to keep them physical fit. A self-developed questionnaire was employed to gather data on the set objectives of the study and the result revealed that majority of the population are aware about the physical activity module like Open Gym, Indoor Gym, walking, running, aerobics, bhangra, dance, yoga and other exercise. In respect to health and fitness, most of the sample are fit in terms of Disease and injury, but in few of them are struggling with Chest pain, heart disease, cholesterol problem, arthritis, back pain, joints pain, obesity and stress, this could be the reason for their sports participation. In contraction of disease and injuries, a very few are taking the medication for their treatment, rest of them are indulging in physical activity. Research also shows that almost half population actively involved in physical activity since 5-10 years, however, maximum number of subjects do not indulge in any physical activity which could be a point of concern. Research also shows that majority of population like the outdoor gym as a tool of the fitness exercise but they want some guidance and help from government sector to maintain and execute the gym in proper manner.

Conclusion

- A majority of the respondents were not on medication which proves that they are healthy individuals who are not advised to take up physical activity.
- A major characteristic of the respondents was that they felt tired quickly followed by having reduced activity level and less intake of healthy food items, thus proving that their fitness level

is not really up to the mark.

- Only a few indicated their medical conditions some of which were: Diabetes, mental illness, hypertension, acidity, asthma, hyperthyroidism, pain, lack of vitamins and minerals etc.
- It was seen that all of the respondents have been regularly engaged in physical activities at various points of time ranging from past month to past ten years, which augurs well for a Fit India.
- This was an open question where the respondents were required to specify the physical fitness programme that they were engaged in. A majority of respondents were engaged in Gym exercises, both open and indoor, followed by walking/jogging/exercise at home. Almost 1/4th of respondents were not engaged in any activity. A majority of the respondents know that open gyms have been installed at several parks for the general public and also aware about the play and play facilities in Delhi.

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