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Physical Activity Assessment Prescription & Referral in Adolescents

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Abstract **Original Research Article**

***Introduction*:** Health benefits are associated with regular physical activity in children and adolescents. Exercise is Medicine is Global Initiative. Increase physical activity is advocated in various National Programs. Fit India Movement is a nation-wide movement in India to encourage people to remain healthy and fit by including physical activities and sports in their daily lives was launched by Prime Minister of India. In view of the prevalence, global reach and health effect of physical inactivity, the issue should be appropriately described as pandemic, with far-reaching health, economic, environmental and social consequences. Research question was to know physical activity, exercise prescription & referral status among adolescents of India. ***Methods*:** For this observational, descriptive, cross sectional research work ;written informed consent was taken from randomly selected 100 adolescents of age between 17-19 years and from their teachers for physical activity readiness questionnaire (PARQ Health, Canada)& for physical activity status assessment for type, frequency, duration & intensity were done and compared with norms and prescribed and referred as per Key Guidelines about Children and Adolescents physical activity given by US Department of Health & Human Services ,Exercise is Medicine ACSM &Clinical Sports Medicine Text Book Peter Brukner and Karim Khan that children and adolescents should do 60 minutes (1 hour) or more of physical activity daily this includes aerobic for most of the 60 or more minutes duration in a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week and should include muscle & bone strengthening physical activity on at least 3 days of the week.Data were processed in excel sheet & SPSS. The statistical significant difference among groups was determined by the chi square test, fisher exact test and Z-test. The level of significance was set at ($p < 0.05$). ***Results*:** Those adolescents replied PARQ in Yes, in them referral needed before starting physical activity were 21%, while those replied PARQ in No were 79%, they were cleared for physical activity. 31% Adolescents were of sedentary habit. Type of physical activity preferred by Adolescents were; Walking 57%, Home exercise 17%, Yoga 16%, Jogging 14%, Badminton13%, Volley Ball 8%, Dance7%, Cricket 6%, Gymnasium 6%, Basketball 5%, Bicycling 5%, Football 1% and Swimming1%. At daily recommended frequency days/week of physical activity were done by 48% of adolescents. Recommended average duration of physical activity average 60 or more minutes were done by 31% of adolescents. Recommended moderate to vigorous intensity of physical activity were done by 46% of adolescents. ***Conclusion*:** Physical Activity Assessment, Referral and Prescription were made in reference with guidelines about children and adolescents physical activity. Outcome revealed burden of physical inactivity status that is considered risk factor for various diseases; as well as magnitude of physical activity prescription adherence status.

Keywords: Physical Activity Assessment Referral Prescription Adolescents.

INTRODUCTION

Physical Activity Needs in Children and Adolescents Daily active play and physical activity have traditionally been an important part of life for children and adolescents. Today, computers and social media have decreased the need and desire for children to move and play. Participation in physical activity decreases with age, and the decline is greater in girls than boys. The challenges associated with getting kids active every day should be met with age appropriate physical activities, enthusiastic leadership, and support from family and friends. A sedentary lifestyle is

recognized as a major risk factor for obesity and cardiovascular disease. The prevalence of overweight and obesity among children and adolescents is a major public health concern, and weight related health problems are being diagnosed earlier in childhood. Children and adolescents who are not exposed to confidence-building opportunities in their physical abilities early in life tend to be less active later in life. Movement skills such as running, jumping, and throwing can serve as the building blocks for a lifetime of physical activity. Children who do not develop these skills early in life may be less likely to meet or exceed recommendations for daily physical activity later in life. Physical Activity Benefits for Children and Adolescents Regular participation in different types of physical activity is essential for healthy growth and development. Evidence shows that physical activity can have a beneficial effect on body composition, cholesterol, blood pressure, blood sugar, aerobic fitness, muscular strength, movement skills, and bone health. Regular physical activity can also improve academic performance and promote feelings of wellbeing. The positive lifestyle behaviors such as participating in daily physical activity that begin during childhood and adolescence tend to carry over into adulthood. In the long run, daily participation in outdoor games, fitness activities and recreational sports will help to improve the health and well- being of all children and adolescents. In physical activity characteristics of children and adolescents; the natural activity pattern of boys and girls is characterized by short bursts of physical activity interspersed with brief rest periods as needed. Most children participate in physical activity to have fun, to make friends, and to learn something new. While youth sports programs can provide an opportunity for young athletes to be physically active, not all children enjoy intense competition and some boys and girls may not prepared for the demands of sports practice and games. Children and adolescents with poor physical fitness are likely to drop out of sports due to frustration, embarrassment or physical discomforts, like pain or injury. Physical Activity Guidelines for Children and Adolescents Based on the physical activity needs, benefits, and characteristics of children and adolescents, the following guidelines should be used to maximize health and well-being among children and adolescents. Children and adolescents should accumulate a minimum of 60 minutes of physical activity daily as part of transportation, physical education, sport, free play and planned exercise. The activities should be a combination of moderate and vigorous intensity. Moderate intensity is defined as activity that increases breathing, sweating, and heart rate and vigorous intensity substantially increases breathing, sweating, and heart rate. Types of physical activities for children and adolescents should be varied, developmentally appropriate, and enjoyable. Examples of aerobic activities include cycling or bike riding, walking, running, field-court-rink games (soccer, lacrosse, basketball, volleyball, hockey, field hockey), roller blading, dancing, and swimming. There is little need for healthy children and adolescents to monitor their heart rate during the activity period. Children and adolescents should also participate in activities that promote muscle strength on two or three days per week. Examples of activities for young children include climbing, jumping, tumbling and gymnastics, and a variety of games. Older children and adolescents can participate in supervised strength training programs provided the focus is on developing proper exercise technique. Good form and mechanics should be stressed. Examples of appropriate activities include body weight calisthenics (i.e. pushups, pull-ups), rock wall climbing, obstacle courses and strength exercises with dumbbells, medicine balls and elastic bands. Traditional games and fitness activities that require participants to run fast, jump high, change direction or maintain balance can develop and reinforce needed movement skills. Jumping rope, animal races, trail running, scavenger hunts and hop scotch can get youth moving in fun activities. Participation in more than one sport or activity provides the child with skills that can be applied to others. Sedentary activity is a strong contributor to overweight and low physical fitness. Sedentary activities such as television viewing, computer and telephone use, and inactive video games should be limited to < 2 hours per day. Special Considerations for Children and Adolescents - Provide positive feedback and encourage an active lifestyle. Children and youth should be exposed to a variety of physical activities and sports. This is important to prevent overuse injury and to develop a full variety of movement skills. Proper skills and mechanics should be learned from a qualified fitness professional in order to prevent injury and to encourage their success. Youth who cannot accumulate at least 60 minutes of physical activity per day should over time gradually increase their frequency and duration of activity until they can reach this activity goal. Youth with special conditions (e.g., diabetes, movement disorders) or disabilities should have their activity program tailored to their specific needs [1]. In view of the prevalence, global reach and health effect of physical inactivity, the issue should be appropriately described as Pandemic, with far-reaching health, economic, environmental and social consequences. Exercise is Medicine is a global initiative to establish physical activity as a standard in healthcare. EIM's Goal is transformational change to institutionalize physical activity assessment & prescription into Global Healthcare Systems. Physical Activity Assessment, Physical Activity Prescription, Physical Activity Referral. Clinic End Goal remains that No patient should leave a physician's practice without: An assessment of their current physical activity levels- and - A physical activity prescription and referral to qualified resources for further counseling. EIM Advocates physicians, exercise professionals, community members, campuses, students, teachers, You! Instead of an allergy, exercise may be the long sought vaccine to prevent chronic

disease and extend life [2]. The Jamaican education system though a rigorous physical education syllabus and dedicated physical education teachers, has paved the way for the island's Olympic track tradition. Exercise in particular, running is engrained in the culture and widely promoted among the children of the island. Physical activity is vital in battling the childhood obesity epidemic and in teaching children to develop lifelong healthy habits. Prepubescent strength gain are accomplished largely with little or no change in size of the muscle, Involve improvement in neural mechanisms including improved motor skill coordination, increased motor unit activation, and other undetermined neurological adaptations. Strength gain in the adolescents result primarily from neural adaptations and increase in muscle size and specific tension [3]. National program for prevention and control of Non communicable diseases are already launched as India is expressing a rapid health transition with Non communicable diseases surpassing the burden of communicable diseases [4]. Exercise can also contribute to various National Health Program of India eg. NTCP, NPCDCS, RKSK, PYKKA, NPFP, RMNCH+A, Fit India Movement was launched by Honourable Prime Minister with a view to make fitness an integral part of our daily lives [5-7]. WHO defines; Adolescents as individuals in the 10-19 years age group(Early adolescents 10-14 years, Middle adolescents 15-17 years ,Late adolescents 18-19 years) and Youth as the 15-24 years age group and .These two overlapping age groups are combined in group of Young people covering the range of 10-24 years [8]. The Pre-participation Examination is a corner stone of Preventing Sports Injury. The Pre-participation examination goals include –assessment of overall health, detection of condition that might cause injury, detect the condition that may disqualify the condition from participating in certain sports, assessment of fitness for the chosen sports, making recommendation for the exercise program. Component of the Pre-participation Examination includes; Medical History, General Medical Health Evaluation, An anatomical review, Flexibility evaluation, Strength assessment, cardiovascular fitness assessment, Masculoskeletal examination, Equipment review [9]. Research question was to know physical activity, exercise prescription & referral status among adolescents.

METHOD

This observational, descriptive, cross sectional, ethically cleared research work was done at IGNOU Program Study Center for Post Graduate Diploma in Maternal & Child Health Course at Dr. S.N. Medical College Jodhpur .Written Informed consent was taken from 100 Adolescents of age 17-19 years selected at random (50 Boys and 50 Girls) & from their teachers for Physical activity readiness questionnaire (PARQ). Reply of PARQ in Yes means Referral needed before starting physical activity and PARQ Reply in No means Clearance for conduction of physical activity [10] Qualified no for participation in sports includes Fever, Hypertrophic cardiomyopathy, Coronary artery anomalies, Arrhythmogenic right ventricular cardiomyopathy, Acute rheumatic fever with carditis, Ehlers-Daanlos syndrome, vascular form, Infectious Conjuctivitis, Infectious Diarrhea [11] for Physical Activity status assessment evaluation were done in context with norms that adolescents should do 60 minutes (1 hour) or more of physical activity daily. Aerobic: Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week. Muscle-strengthening: As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least 3 days of the week. Bone-strengthening: As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least 3 days of the week [12]. Then as per Goal, Life Style needs, Activity preference, International standards, Individualization the Assessment & Exercise Prescription is given in form FITT (Frequency Intensity Time and Type). Frequency was assessed & prescribed in Days/Week. Intensity was assessed & prescribed in form of Light (slight change from normal state) Medium (some perspiration, faster than normal breathing) Heavy (heavy perspiration heavy breathing) Time given to physical activity/ Occasion was assessed & prescribed in form of duration in minutes 15/16-30/31-60/60+minutes. Type of physical activity as per choice of individual was observed [1, 2, 13]. Data so collected was tabulated in an excel sheet, under the guidance of statistician. Data was analyzed using IBM SPSS. Statistics Windows, Version 20.0. The statistical significant difference among groups was determined by the chi square test, fisher exact test and Z-test. The level of significance was set at ($p < 0.05$).

RESULT

Table 1: Adolescent Age wise Category of Boys & Girls

Adolescents Age	Boys	Girls	Total
17 Years	7 (14 %)	9 (18%)	16
18 Years	29 (58%)	24 (48%)	53
19 Years	14 (28%	17 (34%)	31
Total	**50**	**50**	**100**

(P Value 0.284 Chi Square Test)

Table 2: Physical activity readiness questionnaire (PARQ) Reply

Age & Number	PARQ Reply in Yes (Referral needed before starting physical activity)	PARQ Reply in No (Clearance for Physical Activity)	p value (odd ratio)
17 y Boy n = 7	3 (14.29%)	4 (5.06%)	0.261 (6.00)
17 y Girl n= 9	1 (4.76%)	8 (10.13%)	
18 y Boy n=29	7 (33.33%)	22 (27.85%)	0.059 (7.318)
18 y Girl n=24	1 (4.76%)	23 (29.11%)	
19 y Boy n=14	4 (19.05%)	10 (12.66%)	1.000 (0.960)
19 y Girl n=17	5 (23.81%)	12 (15.19%)	
Total = 100	**21**	**79**	**<0.0001**

Table 3: Type of Physical Activity (Mode)

Type of Activity	17 Y M (n=7)		17 Y F (n=9)		18 Y M (n=29)		18 Y F (n=24)		19 Y M (n=14)		19 Y F (n=17)		Total (n=100)
	N	%	N	%	N	%	N	%	N	%	N	%	
Walking	4	57.14	4	44.44	20	68.97	11	45.83	8	57.14	10	58.82	57 (57%)
Home - Exercise	2	28.57	1	11.11	7	24.14	1	4.17	1	7.14	5	29.41	17 (17%)
Yoga	1	14.29	0	0.00	7	24.14	0	0.00	1	7.14	7	41.18	16 (16%)
Jogging	2	28.57	1	11.11	7	24.14	2	8.33	0	0.00	2	11.76	14 (14%)
Badminton	1	14.29	2	22.22	5	17.24	2	8.33	2	14.29	1	5.88	13 (13%)
Volley Ball		14.29	0	0.00	5	17.24	0	0.00	2	14.29	0	0.00	8 (8%)
Dance	1	14.29	0	0.00	2	6.90	2	8.33	0	0.00	2	11.76	7 (7%)
Cricket	0	0.00	0	0.00	4	13.79	0	0.00	2	14.29	0	0.00	6 (6%)
Gymnasium	0	0.00	0	0.00	5	17.24	0	0.00	0	0.00	1	5.88	6 (6%)
Basket Ball	0	0.00	0	0.00	1	3.45	1	4.17	0	0.00	3	17.65	5 (5%)
Bicycling	0	0.00	0	0.00	3	10.34	1	4.17	0	0.00	1	5.88	5 (5%)
Football	0	0.00	0	0.00	0	0	1	4.17	0	0.00	0	0	1 (1%)
Swimming	0	0.00	0	0.00	0	0	1	4.17	0	0.00	0	0	1 (%)

Table 4: Frequency Days/Week of Physical Activity

Age & Number	0/7	1/7	2/7	3/7	4/7	5/7	6/7	7/7	p value (chi square test
17 y Boy n = 7	2	1	1	0	0	0	0	3	0.652
17 y Girl n= 9	4	1	0	0	0	0	1	3	
p value (Fisher exact test)	0.632	1.000	0.437	NA	NA	NA	1.000	1.000	-
18 y Boy n=29	5	1	1	1	0	0	1	20	0.062
18 y Girl n=24	12	0	1	1	1	1	2	6	
p value (Fisher exact test)	0.017	1.000	1.000	1.000	0.452	0.452	0.584	0.002	-
19 y Boy n=14	3	1	1	0	0	1	1	7	0.564
19 y Girl n=17	5	0	0	1	0	0	2	9	
p value (Fisher exact test)	0.698	0.451	0.451	1.000	NA	0.451	1.000	1.000	-
Total = 100	**31**	**4**	**4**	**3**	**1**	**2**	**7**	**48**	**-**

Table 5: Average Duration of Physical Activity Average Minutes / Occasion

Age & Number	Sedentary	1-15	15-30	31-60	60 +	p value chi square test
17 y Boy n = 7	2	2	0	0	3	0.324
17 y Girl n= 9	4	2	2	0	1	
p value (Fisher exact test)	1.000	1.000	0.475	NA	0.261	-
18 y Boy n=29	5	4	6	9	5	0.047
18 y Girl n=24	12	4	3	5	0	
p value (Fisher exact test)	0.017	1.000	0.487	0.535	0.056	-
19 y Boy n=14	3	4	6	1	0	0.124
19 y Girl n=17	5	3	2	4	3	
p value (Fisher exact test)	0.698	0.670	0.097	0.344	0.232	-
Total = 100	**31**	**19**	**19**	**19**	**12**	**-**

Table 6: Intensity of Physical Activity

Age & Number	Sedentary	Light	Moderate	Heavy	p value chi square
17 y Boy n = 7	2	0	5	0	0.091
17 y Girl n= 9	4	3	2	0	
p value (Fisher exact test)	1.000	0.212	0.126	NA	-
18 y Boy n=29	5	6	17	1	0.068
18 y Girl n=24	12	4	8	0	
p value (Fisher exact test)	0.017	1.000	0.098	1.000	-
19 y Boy n=14	3	6	5	0	0.518
19 y Girl n=17	5	4	8	0	
p value (Fisher exact test)	0.698	0.441	0.716	NA	-
Total = 100	**31**	**23**	**45**	**1**	**-**

DISCUSSION

In our research; those adolescents replied PARQ in Yes, referral needed before starting physical activity were 21%, while those replied PARQ in No were 79%, means cleared for physical activity commencement. 31% Adolescents were of sedentary habit. Type of physical activity preferred by Adolescents were; Walking 57%, Home exercise 17%, Yoga 16%, Jogging 14%, Badminton 13%, Volley Ball 8%, Dance7%, Cricket 6%, Gymnasium 6%, Basketball 5%, Bicycling 5%, Football 1% and Swimming1%. At Daily Recommended Frequency Days/Week of physical activity were done by 48% of Adolescents. Recommended Average Duration of Physical Activity Average 60 or more Minutes were done by 31% of Adolescents. Recommended moderate to vigorous intensity of physical activity were done by 46% of adolescents. So adolescents were prescribed physical activity as per guidelines & references [1, 2, 12, 13]. Future recommendation includes appointment of experts eg. Sports Physicians, Sports Physiotherapists, Exercise Physiologists. Facility of outdoor & indoor stadium for various sports & yoga, swimming pool with changing rooms & lockers facility, walking tracks. Enough budget allotment should be provided to improve manpower & resources status in concert with various national programmes advocating physical activity. While in a report from the Centers for Disease Control and Prevention highlights troubling trends among high school students in the United States: Only 27% of students accumulate 60 minutes of physical activity daily. Only 52% of students participate in muscle strengthening activities. Only 29% of students attend daily physical education.41% of students play video or computer games for 3 or more hours per day. 32% of students watch television 3 or more hours per day Physical activity is a learned behavior that is influenced by family, friends, teachers and coaches, as well as the environment [1]. Training induced physiological adaptations depends primarily on intensity of overload. There are at least seven different ways to express exercise intensity. (A) Energy expended per unit time in kcal/minute or kj/minute. (B) Absolute exercise level or power output kgm/minute or W. (C) Relative metabolic level expressed as a percentage of VO2 Max. (D) Exercise below, at or above the lactate threshold or Onset of Blood Lactate Accumulation. (E) Exercise heart rate, or percentage of maximum heart rate; can be used to classify exercise of relative intensity because % of VO2 Max. And corresponding % of HR max relate in a predictable way regardless of gender, race, fitness level, exercise mode or age. Aerobic Capacity improves if exercise intensity regularly maintains heart rate between 55% and 70% of Maximum Heart Rate. (F) Multiples of resting metabolic rate MET. (G) Rating of perceived exertion {RPE} is psycho-physiological approach in which the exerciser rates on a numerical scale perceived feelings relative to exertion level. Monitoring and adjusting RPE during exercise provides an effective way to prescribe exercise from an individual's perception of effort that coincides with objective measures of physiologic/metabolic strain (% HR max, %VO2max, blood lactate concentration [14]. Children and adolescents should enjoy the process of being physically active. Although the value of creative free play should not be overlooked, physical activities with competent and caring instruction provide a unique opportunity for children and adolescents to learn new skills, improve exercise technique and feel good about their accomplishments. This is called physical literacy. The long lasting value of developing physically literate individuals should be appreciated by parents, teachers and coaches. Children who learn how to play with confidence and are motivated to participate in a variety of games and activities are more likely to be physically active for a lifetime. Even inactive boys and girls can improve physical literacy by participating in physical activity programs that are engaging and fun. Just like reading and writing, children need to learn how to perform movement games and sport skills safely and properly. Promoting Success With Physical Activity Participation: The following tips may help parents, coaches and teachers develop safe, and enjoyable physical activity programs for children and adolescents:- Focus on intrinsic values such as skill improvement, personal successes and having fun. Recognize individual differences and capabilities in children and adolescents of the same age. Offer a variety of creative activities and avoid regimentation. Ensure children and adolescents wear appropriate

footwear and clothing. Regularly inspect activity areas and explain safety guidelines. Be a good role model and engage in regular physical activity. Emphasize 'best effort you can do' rather than 'being the best'. Offer opportunities for older children to help teach the younger children [1]. In thermoregulation the sweating mechanism in children is not as efficient as in adults because their sweat glands are less responsive to elevations in temperature and secrete less sweat. As a result, many have expressed concern that children are more susceptible to hyperthermia and heat illness during exercise and physical activity. However, because of their smaller size, the ratio of skin surface area to body mass is greater in children than in adults. This is advantageous in that it enhances the capacity of the available sweat to evaporate and heat to dissipate into the surrounding environment, promoting cooling. It has also been reported that, during exercise, children have greater blood flow to the skin than do adults, also enabling greater heat loss from the exercising tissue to the environment. The amount of heat lost to the surrounding environment is directly linked to the temperature gradient between the body and its surrounding environment. So, when exercising under unfavorable environmental conditions of high humidity and heat—particularly if ambient temperature exceeds that of the body—the larger skin surface–to–body mass ratio of the child may actually increase the risk of hyperthermia. This increased risk occurs because heat may be gained from, rather than lost to, the surrounding environment. In children, as with people of all ages, the danger posed by exercising in a hot environment must be recognized and appropriate precautions, such as ensuring ample hydration and reducing exercise intensity and duration, must be taken. The epidemic of obesity observed in most Western societies, including the United States, is apparent not only among adults but also among children. Indeed, data collected by the Centers of Disease Control and Prevention (CDC) indicate that, in 2006, the percentage of American children and adolescents considered to be obese had risen to 16%. This trend continues to grow. The increase in childhood obesity is a major health concern, especially as it corresponds with a similar elevation in the incidence of type II, or "adult-onset," diabetes in children. Other diseases or conditions associated with obesity include high blood pressure, respiratory problems, heart disease, and even depression. According to the CDC, factors that contribute to this disturbing trend in obesity among children include an increase in sedentary leisure time activities and a decrease in structured and unstructured physical activity. A recent policy statement released by the American Association of Pediatrics strongly urges that more opportunities be provided for children to regularly participate in physical activity in school, after-school programs, and various community settings and that children and their parents make healthier dietary decisions. Participation in sports and exercise training does not affect the rate of physical growth and maturation in either boys or girls, as long as proper caloric intake is maintained. A properly designed resistance training program emphasizing correct technique results in strength gains— with little muscle hypertrophy—in boys and girls without undue risk of injury. When expressed in relative terms (i.e., mL·kg−1·min−1), there is no significant difference in the maximal aerobic capacity, or O2max, of children compared with adults. During endurance exercise of the same intensity, the heart rate of children is higher than that of adults, but the working muscles of children are more effective in extracting oxygen from the blood delivered to them. Even when participating in endurance training programs of the same intensity and duration, improvements in O2max are lower in children compared with adults, mainly due to differences in heart size and blood volume. The anaerobic exercise performance of children is less than that of adults. This is explained by the lower glycogen content and glycolytic enzyme capacity in the muscles of children [15]. The concept of "fitness personality" has been a topic of growing interest in the past few decades, and recent findings suggest it can be used to open a dialogue with patients about their activity choices. Clinicians who understand how seven personality dimensions (sociability, spontaneity, self-motivation, aggressiveness, competitiveness, aggressiveness, mental focus, and risk taking) relate to various sports can help patients identify more satisfying activities. By using simple tools for matching personality types with activities, physicians may increase patient compliance with exercise prescriptions. Patients who complete a personality assessment may gain insights and additional motivation to pursue regular exercise and fitness for a lifetime [16].

CONCLUSION

Physical activity assessment& prescription & referral were given in reference with norms set as per standardized key guidelines about children and adolescents physical activity that children and adolescents should do 60 minutes (1 hour) or more of physical activity daily this includes aerobic for most of the 60 or more minutes duration in a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week and should include muscle & bone strengthening physical activity on at least 3 days of the week. This study not only revealed magnitude of physical inactivity status that is considered risk factor for many diseases but also revealed gaps in physical activity prescription following status that can be corrected by adhering to norms.

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