



PRIORITIZING HEALTH AND FITNESS PRACTICES: AN APPLICATION OF GARRETT RANKING TECHNIQUE

Dr. Sahifa Moosa Muradbi Mazgaonkar

AFFILIATIONS

- ^{1.} Assistant Professor, Department of Accountancy, M. L. Dahanukar College of Commerce, Vile Parle (East), Mumbai.

ABSTRACT

This paper prioritizes various health and fitness practices by means of the Garrett Ranking Technique, one of the popular techniques used for the evaluation of preference and decision-making patterns. The research work actually focuses on those very preferred practices that substantially contribute toward having good health and fitness. A survey was conducted to elicit information about the preference of the participants. In order of preference, the participants ranked various health practices as, Yoga, Gym, Sports and Cycling, Dance and Zumba, Walking. Garrett Ranking Technique is applied to analyse the data. Ranks were assigned based on the mean scores computed. The findings demonstrate a hierarchy of preferred health practices and therefore provide insight into more effective ways of improving health and wellness strategies for health professionals, fitness enthusiasts, and policymakers. The research adds to the ever-increasing body of knowledge within the health science discipline by offering a structured way through which health behaviours are understood and prioritized.

Key Words-Fitness, Garrett Health Practices, Ranking Technique,

1. INTRODUCTION

Health and fitness take a very prominent place with the demands of today's fast-moving life, and thus people always find themselves reaching out to different practices that help in their overall well-being. With several options available, a more vital part would be knowing which ones are more functional and most popular for those people looking forward towards a healthier life. This leads to preventing several diseases, like obesity and heart stroke, and brings happiness and strength. It is priority in health that goes with proactive habits and activities like yoga and physical exercises, showing overall success and well-being. Importance of the topic assigns a large number of options that become prevalent today, so understanding which practices are most effective and preferred by any person looking forward to a healthier lifestyle becomes very necessary. This paper ranks various health and fitness practices such as Yoga, Gym, Sports, Cycling, Dance and Zumba, and Walking using the Garrett Ranking Technique. In search of preferences and efficacy, this research seeks to shed some light on which methods have proven most effective to maintain or improve physical fitness, relating specifically to the urban diversity of Mumbai's population.

1.1 REVIEW OF LITERATURE

Streeter et al. (2010) conducted a randomized controlled trial comparing yoga and walking, finding that yoga significantly improved mood and reduced anxiety more than walking. Increased thalamic GABA levels were linked to these benefits, suggesting GABA's mediator role. Sharma (2015) explored yoga's role in sports, highlighting its benefits for balance, core strength, and injury prevention. Yoga enhances mental acuity and addresses muscle imbalances, making it a holistic addition to athletic training. Govindaraj et al. (2016) compared yoga and physical exercises, noting that both improve physical health. Yoga's unique benefits include breath regulation, mindfulness, and postural maintenance, often surpassing traditional exercises. Singh et al. (2021) investigated the impact of physical activities during the Covid-19 lockdown, finding that exercises like yoga and walking increased happiness and reduced stress. Factors such as age and education level influenced these outcomes. Kilgore (2021) integrated yoga with outdoor activities like hiking and climbing, showing how yoga improves physical performance and balance. Tailored yoga practices help adventurers stay strong and flexible, reducing injuries. Vijayalakshmi & Jayachitra (2021) studied the effects of combining Zumba and yoga on school girls, revealing significant improvements in body composition and VO₂ max. This integration enhances fitness outcomes in the somatic aspect. Lakshmi et al. (2022) investigated that Yoga significantly reduces body fat percentage but does not dramatically change BMI, weight, or lean body mass in the short term. It enhances flexibility, balance, and well-being, requiring longer interventions for weight loss and lean mass changes. Kim et al. (2022) concluded Healthy living behaviors in older adults are influenced by personal, interpersonal, and community factors. Urban seniors are more affected by community factors, while rural seniors are influenced by interpersonal factors, highlighting the need for region-specific interventions. Siregar et al. (2023) compared yoga and Zumba for stress management in college students, finding yoga significantly more effective in reducing stress levels, suggesting it as a better coping strategy. Narula et al. (2023) emphasized the importance of accessible and affordable stress coping mechanisms like yoga and gym exercises. The study focused on how gyms should address both functional and expressive needs to enhance the fitness experience. Cutruzzola et al. (2024) investigated yoga versus cycling for glucose management in adults with type 1 diabetes, finding yoga safer with fewer hypoglycemia episodes and lower glucose variability. Verma et al. (2024) reviewed the benefits of cardio, aerobic exercise, Zumba, and yoga on physical, mental, and emotional

wellness. Each exercise type offers unique advantages, with yoga improving flexibility, mental relaxation, and emotional balance. Ben Waer et al. (2024) compared Pilates and Zumba for postmenopausal women, finding both improved functional performance and mood. Zumba showed greater improvements in social function, mental health, and emotional role limitations.

1.2 Objective

It primarily intends to rank different health and fitness practices by the Garrett Ranking Technique with a view to determining which, among these practices, is mostly preferred by individuals in order to be healthy and fit. This research will provide insights into the relative importance of different health behaviour that will help professionals in the health sector, the fitness community, and policy-makers at large, formulate more effective strategies towards good health and wellness.

1.3.Scope

The scope of this research is confined only to the evaluation and ranking of various health and fitness practices in Mumbai with the help of the Garrett Ranking Technique. Data would be gathered from a sample of heterogeneous participants who rank various health practices like Yoga, Gym, Sports, Cycling, Dance and Zumba, Walking. It focuses on these practices to detail preferences and priorities that people place on various options of health practices at their disposal. The findings are relevant to all stakeholders, from health professionals and fitness trainers to public health policymakers and those seeking to optimize their personal health routines. It also provides a foundation for future studies where similar methodologies are applied in other regions or cities to allow comparative analysis.

1.4.Importance

The research therefore comes in very handy because it satisfies a rising need: how people orient themselves toward various health and fitness practices. This is very important in designing relevant and effective health interventions. The application of the Garrett Ranking Technique in this study offers a systematic and quantifiable approach toward reviewing these preferences and offers invaluable insights into practices held to be most beneficial in maintaining good health. The findings shall be ready to inform public health campaigns and guide the development of fitness programs, enlighten individuals toward better decision-making in health. Furthermore, the research will also bring added value to the academic field by demonstrating how a robust ranking method in the health sciences can be used and applied in any future studies looking into other ways of health behaviour and wellness.

2. METHODOLOGY

Sampling Procedure, Sample Size and Data Collection:

The data for the present study was collected from 482 respondents selected on a simple random sampling basis from Mumbai and Mumbai Suburban area. An attempt has been made to refer to some of the books, e-journals, and internet sites to make a better understanding of the research study. The primary data related was collected with the help of a well-structured questionnaire.

2.1 Garrett technique of ranking

Garrett ranking is a statistical technique used in the analysis of rankings and ratings of individual and group preferences concerning a set of items or questions. It finds very broad applications in market research, opinion surveys, and other social sciences research.

The Garrett score formula (Henry Garret (1969) is as follows:

$$G = \Sigma R / (N \times M)$$

Where,

G is the Garrett score

ΣR is the sum of the ranks assigned by all respondents to each item

N is the number of the respondents

M is the number of the of items

The technique of Garrett scoring requires a respondent to rank, in order of preference, a given set of items or questions. Items get numerical ranks, where the one preferred most gets a rank of 1, the second-most preferred a rank of 2, and so on. The sum of all the ranks for each item is then calculated, and the Garrett score is obtained by dividing the sum of ranks by the total number of respondents multiplied by the number of items.

The resulting Garrett score provides a measure of the overall preference or ranking of each item, which is used to compare and rank the items in order of importance.

Application of garrett ranking technique- Data was collected from 482 respondents. Preferences of respondents were taken on ranking scale from 1 to 5, 1st rank being highest and 5thrank being lowest rank. These five categories covered under good health and fitness practices are listed in below table number 1.

Ranking of Total Sample for Practices forHealth and Fitness: Data collected from 482 respondents is summarized in Table 1 by calculating total frequency of each rank given to respective practice. It can be seen from the table that out of 482 respondents, 66 respondents have given 1st rank to Yoga, whereas 109 respondents have given 2nd rank to Yoga and so on.As far as Gym is concerned, 39 people have ranked Gym as 1st and 60 people have 2nd rank to Gym and so on.

3. RESULTS

TABLE 1
ESTIMATING RANKS OF TOTAL SAMPLE FORHEALTH AND FITNESS PRACTICES

Sr. No.	Health and Fitness Practices	Ranks given by respondents					Total
		1	2	3	4	5	
1	Yoga	66	109	62	204	47	488
2	Gym	39	60	206	100	83	488
3	Sports and Cycling	60	226	118	52	32	488
4	Dance and Zumba	21	43	57	82	285	488
5	Walking	303	54	45	43	43	488

Source: Researcher's compilation from primary data

Per cent position and Garret value of Good Health and Fitness Practices:

Per cent position value were estimated by applying the formula i.e., $100(R_{ij}-0.5)/N_j$, where, R_{ij} represents respective ranks and N_j represents total number of ranks. Following table depicts the percent positions of each factor calculated by applying the formula. Garret Scores given in the last column are obtained by referring Garret Ranking Conversion Table.

TABLE 2
PER CENT POSITION AND GARRET VALUES OF HEALTH AND FITNESS PRACTICES

Sr. No.	Ranks	$100(R_{ij} - 0.5)/N_j$	Percent Position	Garret Score
1	Rank 01	$100(1 - 0.5)/5$	10	75
2	Rank 02	$100(2 - 0.5)/5$	30	60
3	Rank 03	$100(3 - 0.5)/5$	50	50
4	Rank 04	$100(4 - 0.5)/5$	70	40
5	Rank 05	$100(5 - 0.5)/5$	90	25

Source: Researcher's compilation from primary data

Estimating Total Score of Health and Fitness by multiplying Garrett Value with the respective rank Garrett value:

Next step in calculating Garret ranks is multiplying Garret Value with the given values as shown in Table 3. Then total values are summed for each practice as shown in last column of Table 3.

TABLE 3
ESTIMATING TOTAL SCORE OF HEALTH AND FITNESS PRACTICES BY MULTIPLYING GARRETT VALUE WITH THE RESPECTIVE RANK GARRETT VALUE

Sr. No.	Health and Fitness Practices	1st*75	2 nd *60	3 rd *50	4 th *40	5 th *25	Total
1	Yoga	4950	6540	3100	8160	1175	23925
2	Gym	2925	3600	10300	4000	2075	22900
3	Sports and Cycling	4500	13560	5900	2080	800	26840
4	Dance and Zumba	1575	2580	2850	3280	7125	17410
5	Walking	22725	3240	2250	1720	1075	31010

Source: Researcher's compilation from primary data

Estimating Ranks of Health and Fitness Practices based on Average Score of the respondents:

Average scores are estimated by dividing total value as obtained in Table 3 by total number of respondents. In the next step, ranks are allotted to average scores of respective practices. 1st rank is given to practice with highest average score i.e. 63.55 followed by 2nd rank given to practice scoring 55.00 average and so on.

TABLE 4
ESTIMATING RANKS OF HEALTH AND FITNESS PRACTICES BASED ON AVERAGE SCORE OF THE RESPONDENTS

Sr. No.	Health and Fitness Practices	Total	Average	Ranks
1	Yoga	23925	49.03	3
2	Gym	22900	46.93	4
3	Sports and Cycling	26840	55.00	2
4	Dance and Zumba	17410	35.68	5
5	Walking	31010	63.55	1

Source: Researcher's compilation from primary data

4. DISCUSSION

The results indicate that walk becomes the most preferred activity with the highest average score of 63.55, followed by sports and cycling with an average score of 55.00. Yoga places relatively high in the preference list, with an average score of 49.03, therefore placing third in the order of preference. Gym activities took a slightly lower preference ranking fourth with an average score of 46.93. On the other hand, Dance and Zumba obtained the lowest average score of 35.68, which made it the least preferred practice among the participants.

This high ranking can be explained by the fact that walking is the most accessible, easiest, and cheapest form of activity to do. Another activity, sports and cycling, was also of interest due to their dual goals: physical fitness and recreation. Yoga was ranked third in this list because it is increasingly popular both as a physical and mental practice which allows well-being on both levels. Gym activities, although very useful, would have probably ranked lower because they require special facilities and possible membership costs. Dance and Zumba, although fun and engaging, would have probably rated the lowest because of their specific demographics appeal and perceived intensity.

5. CONCLUSION AND SUGGESTIONS

The study concludes that walking is the most preferred health and fitness practice in the city of Mumbai, followed by sports and cycling, yoga, gym activities, and finally, dance and Zumba. The result simply means that people prefer those simple exercises which can easily be done and embedded into routines.

Although several health and fitness activities can be encouraged, three cost-effective modes of exercise that must find general participation are walking, cycling, and enhanced pedestrian and cycling infrastructure to support the same. Community classes in a very broad range of practices like yoga, sports, and dance can help meet various individual goals related to fitness. Activities like dance and Zumba must be targeted at various different demographics based on individual choices of a social workout. These less frequently indulged activities can be made more aware through campaigns and trial sessions, which again will increase participation. Finally, revamping the gym facilities with flexible membership options and associating it with some of the popular activities will make them more attractive and accessible.

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