

Nutrition and Health Knowledge of Fitness Trainers from Mumbai City

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Abstract:

Introduction: Nutrition is an important complement of any physical fitness program. The main dietary goal for active individuals is to obtain adequate nutrition to optimize health and fitness or sports performance. So, a reasonable strength and conditioning program and a well-balanced diet must be presented as a sensible alternative to a riskier, shortcut mind-set.

Objective: To assess the nutrition and health knowledge of fitness trainers from Mumbai City

Methodology: A cross sectional study was conducted in 100 fitness trainers (76 males) in the age group of 20-40 years. A questionnaire was used to assess the knowledge of trainers regarding nutrition. Based on their responses, trainers were scored marks out of 100. Analyses were performed using SPSS software for Windows (version 16.0, 2007, SPSS Inc, Chicago, IL). P-value < 0.05 was considered to be statistically significant.

Results:

11% of fitness trainers scored <40% of marks when tested on their nutrition and health knowledge. Likewise 25% scored 41-50%, 21% scored 51-60%, 20% scored 61-70% whereas only 25% scored >70% marks. Male trainers scored slightly lesser marks (56.4±18%) as compared to female trainers (60.5±13.4%), however this difference was not significant (p>0.05). Trainers who had completed at least graduation (63.8±15.2%) had scored significantly higher marks than those who had completed only S.Sc.-H.Sc. (49.9±15.4%) and those who had a diploma certificate in fitness or yoga (53.5±17.2%)(p<0.05).

Conclusion:

Nutrition knowledge of fitness trainers in Mumbai city is not adequate. Intense training programs need to be planned to improve the nutrition knowledge of fitness trainers.

Key Words:

Diet, Nutrition, Health, Knowledge, Fitness Trainers.

Introduction:

Nutrition is an important complement of any physical fitness program. The main dietary goal for active individuals is to obtain adequate nutrition to optimize health and fitness or sports performance [3]. This is not only important to help improve performance but also to promote healthy dietary practices in the long-term [5]. So, a reasonable strength and conditioning program and a well-balanced diet must be presented as a sensible alternative to a riskier, shortcut mindset [1]. Compared with parents, it has been found that trainers had more influence on the attitudes, subjective norms, and intentions of adolescents regarding supplement use [2]. Little *et al.* (2002) showed that adolescents from low income communities receive less educational resources and may possess insufficient knowledge of nutrition and sport supplements to make health conscious decisions. Their study also indicated that a short-term nutritional education program can significantly improve supplementation knowledge [7]. A survey about college athletes indicated that women received more nutrition information than men [4]. Also, strength and conditioning coordinators and athletic trainers were the primary nutrition sources for men, whereas university classes and nutritionists were primary for women [4]. In a questionnaire investigation from coaches and trainers, participants who coached/trained female athletes tended to score better than the participants who coached/trained male athletes [8]. Krumbach *et al.*, 1999 showed that male athletes were more likely to get supplement information from Nutritionist/Dietician and self, and females from family members or friends and physicians or pharmacists [6]. In another survey about athletic trainers, it was found that 30% of participants reported dietitians were available to them; the same percentage reported utilizing dietitians [9]. The dietary attitudes could be regarded as a positive aspect of sport, provided athletes, physicians and trainers correct their dietary errors (Shifflett *et al.*, 2002) [8]. There have been only few studies assessing nutritional knowledge, attitudes and practices (KAP) of male and especially female athletes or trainers in India. The purpose of this study was to assess nutritional Knowledge & Practice of male and female body building trainers in Mumbai. The results of the present study can be used to develop training seminars and educational materials to promote greater knowledge and healthy attitudes among body building trainers.

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Methodology: A cross sectional study was conducted in 100 fitness trainers (76 males) in the age group of 20-40 years. A questionnaire was used to assess the knowledge of trainers regarding nutrition. Based on their responses, trainers were scored marks out of 100. Analyses were performed using SPSS software for Windows (version 16.0, 2007, SPSS Inc, Chicago, IL). Data are presented as Mean \pm SD or frequency (percentage). Independent sample T test was used to analyze the difference in scores when trainers were classified according to gender. One way ANOVA with post-hoc Tukey's test was used to analyze the difference in scores when trainers were classified according to qualification. P-value $<$ 0.05 was considered to be statistically significant.

Results:

11% of fitness trainers scored $<$ 40% of marks when tested on their nutrition and health knowledge. Likewise 25% scored 41-50%, 21% scored 51-60%, 20% scored 61-70% whereas only 25% scored $>$ 70% marks. Male trainers scored slightly lesser marks (56.4 \pm 18%) as compared to female trainers (60.5 \pm 13.4%), however this difference was not significant ($p >$ 0.05). Trainers who had completed at least graduation (63.8 \pm 15.2%) had scored significantly higher marks than those who had completed only S.Sc.-H.Sc. (49.9 \pm 15.4%) and those who had a diploma certificate in fitness or yoga (53.5 \pm 17.2%) ($p <$ 0.05).

Conclusion:

Nutrition knowledge of fitness trainers in Mumbai city is not adequate. Intense training programs need to be planned to improve the nutrition knowledge of fitness trainers.

Key Words:

Diet, Nutrition, Health, Knowledge, Fitness Trainers

Results:

A cross sectional study was conducted in 100 fitness trainers (76 male trainers) to understand their knowledge and practice regarding nutrition from the age groups of 20 – 40 years. Off the 100 trainers, 13% trainers had studied only up to S.Sc. or H.Sc. 46% had completed at least graduation whereas 41% had only a 3 or 6 month certificate course in fitness or yoga.

Trainers were scored from 1 to 100 based for their nutrition knowledge based on their response to a pre-tested questionnaire to assess their knowledge.

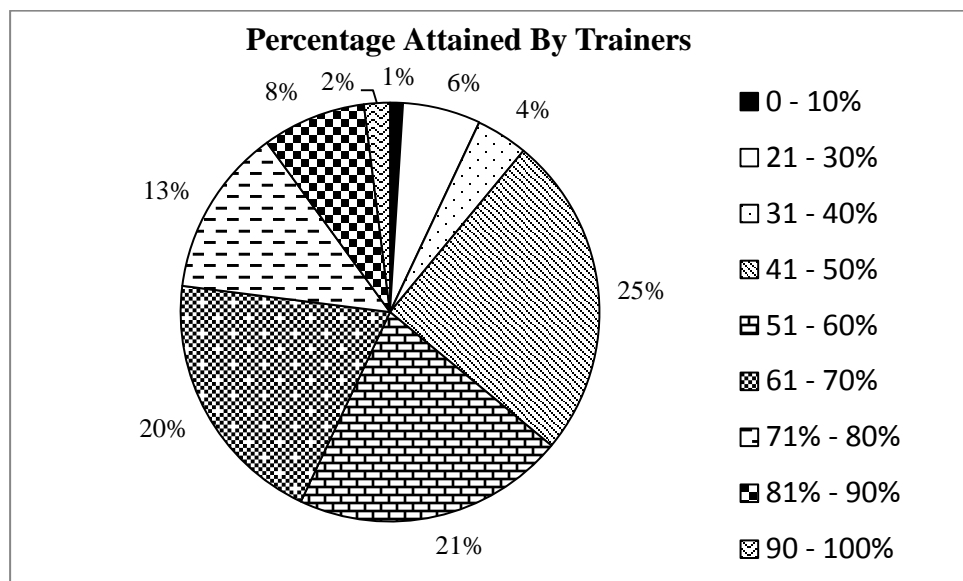


Figure 1: Percentage of marks attained by trainers

As seen in the **Figure 1**, 1% scored less than 10% marks, 6% scored 21 – 30% marks, 4% scored 31-40% marks, 25% scored 41-50% marks, 21% scored 51 – 60% marks, 20% scored 61 – 70% marks, 13% scored 71-80% marks, 8% scored 81-90% marks and only 2% scored 90% marks.

On average, the trainers scored $57.5 \pm 6.2\%$ marks. Male trainers scored slightly lesser marks ($56.4 \pm 18\%$) as compared to female trainers ($60.5 \pm 13.4\%$), however this difference was not significant ($p > 0.05$).

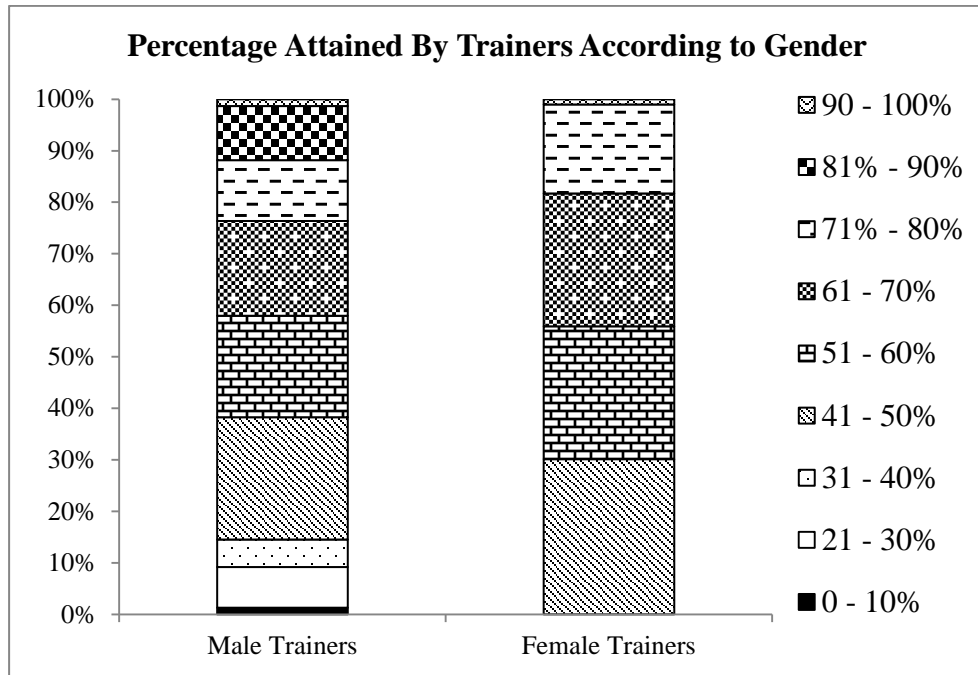


Figure 2: Percentage of marks attained by trainers when classified according to gender

As seen in **Figure 2**, in female trainers, none of the trainers scored less than 40% marks, 7 (29.2%) scored 41-50% marks, 6 (25%) scored 51-60% marks and 61 – 70% marks each, 4 (16.7%) scored 71-80% marks and 1 (4.2%) scored more than 90% marks. On the other hand in male trainers, 1 (1.3%) scored less than 10% marks, 6 (7.9%) scored 21 – 30% marks, 5 (5.3%) scored 31-40% marks, 18 (23.7%) scored 41-50% marks, 15 (19.7%) scored 51-60% marks, 14 (18.4%) scored 61 – 70% marks, 9 (11.8%) scored 71-80% marks, 8 (10.5%) score 81-90% marks and only 1 (1.3%) scored more than 90% marks.

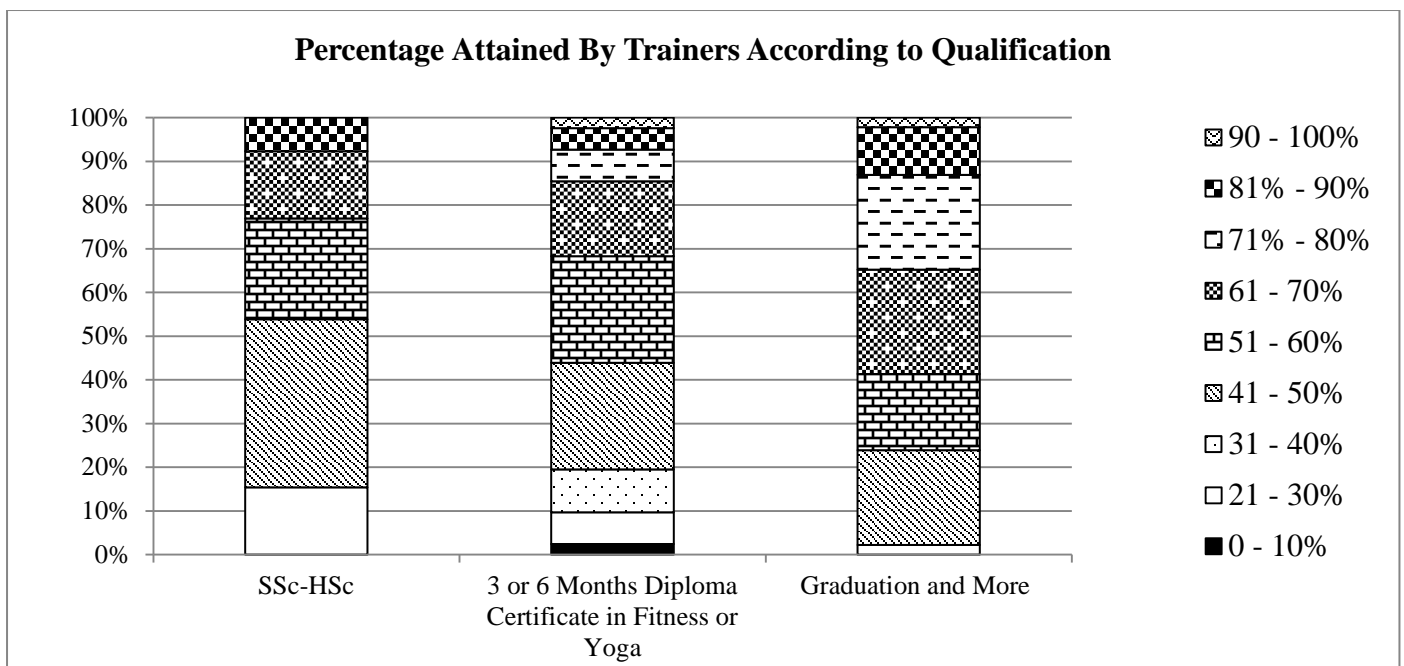


Figure 3: Percentage of marks attained by trainers when classified according to qualification

As seen in Figure 3 , 5 (53.9%) trainers who had completed only S.Sc-H.Sc scored less than 50% marks, 3 (23.1%) scored 51-60% marks, 2 (15.4%) scored 61-70% marks and 1 (7.7%) scored 81-90% marks. None of the S.Sc-H.Sc qualified trainers had more than 90% marks. Similarly in trainers who had 3 or 6 months certificate in fitness or yoga, 18 (43.9%) scored less than 50% marks, 10 (24.4%) scored 51-60% marks, 7 (17.1%) scored 61-70%) marks, 3 (7.3%) scored 71-80% marks, 2 (4.9%) scored 81-90% marks and 1 (2.4%) scored more than 90% marks (Figure 7). As against this in trainers who had completed at least graduation, only 11 (23.9 %) scored less than 50% marks, 8 (17.4%) scored 51-60% marks, 11 (23.9%) scored 61-70% marks, 10 (21.7%) score 71-80% marks, 5 (10.9%) scored 81-90% marks and 1 (2.2%) scored more than 90% marks

Table 1: Mean Marks Attained by Trainers when classified according to qualification

	S.Sc-H.Sc (n=13)	3 or 6 Months Diploma Certificate in Fitness or Yoga (n = 41)	Graduation and More (n = 46)
Total Percentage of Marks (%)	49.9±15.4*	53.5±17.2*	63.8±15.2

*significantly different from graduation and more (p<0.05)

As seen in the **Table 1**, trainers who had completed at least graduation had scored significantly higher marks than those who had completed only S.Sc-H.Sc and those who had a diploma certificate in fitness or yoga (p<0.05). Even though trainers with diploma certificate in fitness or yoga had higher core than S.Sc-H.Sc qualified trainers, this difference was not significant (p>0.05) (**Table 1**).

Conclusion:

Nutrition and health knowledge of fitness trainers in Mumbai city is not adequate. It is necessary to increase trainers' nutritional knowledge and practical attitude. It is suggested that our male and female trainers need more theoretical, applied and technical information about basics of nutrition, nutrients, food groups and also use of vitamin supplements and prescribing nutritional supplements. Continuing educational workshops and courses are necessary to improve trainers' nutritional knowledge, attitudes and practices.

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