



ASSESSMENT AND COMPARISON OF NUTRITIONAL KNOWLEDGE IN INDIAN ALLIED HEALTH PROFESSIONALS

Jyoti Saini

ABSTRACT This study aimed to assess the level of nutritional knowledge among Indian allied health professionals and to compare scores across different professional groups, including occupational therapists, physiotherapists and speech therapists. A structured multiple-choice questionnaire comprising 20 nutrition-related questions was created using Google Forms and disseminated via WhatsApp through virtual snowball sampling. Data were collected from 48 participants between 8th and 15th September 2020, primarily in Mumbai, India. The results revealed that the average score for correctly answered questions was 55.3%, indicating a moderate level of knowledge with notable gaps. Occupational therapists scored the highest (mean = 56.3%), followed by physiotherapists (51.8%) and speech therapists (50%). Certain questions—specifically those related to protein-induced calcium loss, short-term diet effects, meal frequency and vegetarian calcium sources—received particularly low correct response rates. The sample was predominantly female (84.4%) with a mean age of 27.9 years, and most participants had less than five years of work experience and were employed in the private sector. The findings suggest that Indian allied health professionals lack sufficient knowledge in key nutritional areas, which may impact their ability to offer comprehensive, evidence-based guidance to clients. The study highlights the need for enhanced nutrition education at the university level and encourages interdisciplinary collaboration to strengthen healthcare outcomes. Limitations include the self-reported nature of data and the limited number of questions, which may not comprehensively assess all aspects of nutrition knowledge. Further research with a broader scope is recommended.

KEYWORDS :

AIM:

To assess the nutritional knowledge of Indian allied health professionals.

OBJECTIVES:

- To assess the nutritional knowledge in Indian allied health professionals.
- To compare the nutrition knowledge scores of groups of different allied health professionals.

Procedure:

A nutrition based questionnaire with multiple choice questions was prepared on Google forms and the link was shared with various allied health professionals known to the researcher on the social media application WhatsApp, primarily in Mumbai, India. The link was also shared in professional WhatsApp groups, allowing participation from other regions as well.

Application Used to Make the Questionnaire: Google Forms

Social Media Used to Reach Participants: WhatsApp

Data Collection Period: 8TH Sept – 15TH Sept, 2020

Sampling Technique: Virtual Snowball Sampling

Sample Size: 48

The Questionnaire:

Demographics:

Name:

Age:

Gender:

•Male •Female •Prefer not to say

Educational qualification:

•Graduate •Post graduate •Doctorate

Profession:

•Occupational therapist •Physiotherapist •Speech therapist

Working in:

•Government Sector •Private Sector •Freelancer

Have experience of:

•1-5 years •5-10 years •10-20 years •20 years +

Nutrition Questionnaire

1. What type of dietary fiber is helpful in lowering the blood cholesterol level?

•Soluble fibre * •Insoluble fibre •Cellulose

2. Excess of which nutrient may cause body calcium loss?

•Protein * •Saturated fat •Sugar

3. A nutrient believed to help prevent thrombosis is...

•Omega-3 fat * •Monounsaturated fat •Vitamin C

4. The adequate intake level of calcium for adults aged 51-70 years is...

•500mg/day •1200 mg/day * •2000mg/day

5. The major type of fat in olive oil is....

•Saturated fat •Polyunsaturated fat •Monounsaturated fat *

6. Compared with unprocessed vegetable oil, hydrogenated fats contain....

•More poly-saturated fats •More Trans fats* •More cholesterol

7. Which nutrient is protective against hypertension?

•Potassium * •Chlorine •Iron

8. Which vitamin is likely to be too toxic if consumed in excess amount for a long period of time?

•Vitamin C •Vitamin D •Vitamin A *

9. The most concentrated source of vitamin B12 is...

•Fruit •Meat * •Whole grain cereals

10. Which substance raises the blood HDL- Cholesterol level?

•Alcohol * •Riboflavin •Animal protein

11. In general, dietary recommendations are intended to...

•Increase athletic performance •Maintain public health * •Maximize food efficiency

12. Type of food believed to have a preventive effect on various types of Cancer is....

•Milk Page 10 of 30 •Fruit and vegetable * •None of the above

13. The number of kilocalories in one gram of fat is...

•9 * •7 •4

14. Which of the following is not an antioxidant nutrient?

•Beta-carotene •Zinc * •Vitamin E

15. The nutrient strongly associated with the prevention of neural tube defects is...

•Vitamin C •Beta-carotene •Folate *

16. Short-term (diet) plans are usually successful at achieving weight loss because they....

•Cause the body to lose water * •Decrease appetite •Burn large amount of stored fat

17. Having smaller, more frequent meals may help with.....

•Reducing weight •Increasing weight •Nothing whatsoever *

18. What is the recommended amount of salt/day for a 4-6 year old?

•Less than 3gms * •Less than 2gms •Less than 0.5gms

19. Which nut has the highest amount of Omega-3 in it?

•Cashew nut •Walnut* •Hazelnut

20. Which is the richest vegetarian source of calcium?

•Paneer •Ragi •Agathi leaves *

The questions 1-16 were adopted from and modified from Temple⁽⁴⁾ and Al-Numair⁽¹⁾. The questions 17-20 were designed by the researcher. The asterisk denotes the right answer.

Observations

1. What type of dietary fiber is helpful in lowering the blood cholesterol level? Soluble Fibre (79.2%)

2. Excess of which nutrient may cause body calcium loss? Protein (25%)

3. A nutrient believed to help prevent thrombosis is... Omega 3 fat (66.7%)

4. The adequate intake level of calcium for adult aged 51-70 years

- is... 1200 (66.7%)
5. The major type of fat in olive oil is.... Monounsaturated fat (56.3%)
 6. Compared with unprocessed vegetable oil, hydrogenated fats contain....More Trans Fats (56.3%)
 7. Which nutrient is protective against hypertension? Potassium (72.9%)
 8. Which vitamin is likely to be toxic if consumed in excess amounts for a long period of time? Vitamin A (52.1%)
 9. The most concentrated source of vitamin B12 is... Meat (60.4%)
 10. Which substance raises the blood HDL- Cholesterol level? Alcohol (37.5%)
 11. In general, dietary recommendations are intended to... Maintain public health (62.5%)
 12. Type of food believed to have a preventive effect on various types of Cancer is... Fruits and Vegetables (72.9%)
 13. 14. 15. The number of kilocalories in one gram of fat is... 9 (66.7%)
 14. Which of the following is not an antioxidant nutrient? Zinc (37.5%)
 15. The nutrient strongly associated with the prevention of neural tube defects is...Folate (79.2%)
 16. Short-term (diet) plans are usually successful at achieving weight loss because they..... Cause the body to lose water (33.3%)
 17. Having smaller, more frequent meals may help with..... Nothing whatsoever (27.1%)
 18. What is the recommended amount of salt/day for a 4-6 year old? Less than 3gms (37.5%)
 19. Which nut has the highest amount of Omega-3 in it? Walnut (87.6%)
 20. Which is the richest vegetarian source of calcium? Agathi Leaves (27.1%)

*The numbers in the bracket denotes the percentage of participants who got that particular question right.

RESULTS AND DISCUSSION

Overall 48 allied health professionals participated in this study. 84.4% of the participants were female and 14.6% were male. 58.3% had a postgraduate degree and 41.7% had a graduate degree. The mean age of the participants was 27.9 years.

79.2% participants were Occupational Therapists, 16.7% were Physiotherapists and the remaining 4.1% were Speech Therapists. 12.5% participants were working in Governmental Organizations, 16.7% were working as freelancers and the remaining 70.8% were working in the private sector.

75% of the participants had a work experience of less than five years, 12.5% had any experience of 5-10 years, 10.4% had an experience of 10-20 years and 2.1% had an experience of more than 20 years. The mean mark for correctly answered was 55.3%. The total number of Speech therapists participating was 2. The average age was 28 years.

100% were graduates and females. 50% worked as a freelancer and the other 50% in the private sector. 50% had less than 5 years of experience and the other had experience of 5 – 10 years. The mean mark for correctly answered was 50%.

The total number of Physiotherapists participating were 8. The average age was 28.5 years and all 100% were females. 50% were post graduates and the remaining 50% were graduates. 12.5% were working in the government sector, 12.5% were freelancers and the remaining 75% were working in the private sector. 75% had a working experience of less than 5 years and the remaining 25% had an experience of 5 – 10 years. The mean mark for correctly answered was 51.8%.

The total number of Occupational therapists participating was 38. The average age was 27.7 years and 18.4% were males and 81.6% were females. 57.8% were post graduates and 42.2% were graduates. 13.1% worked in the government sector, 15.7% were freelancers and 71.2% were working in the private sector. 76.3% had less than 5 years of experience, 13.1% had 5-10 years of experience, 7.8% had 10–20 years of experience and 2.8% had more than 20 years of experience. The mean mark for correctly answered was 56.3%.

Questions numbered 2, 16, 17 and 20 were the ones which scored the lowest among all.

Overall results indicate serious gaps in nutritional knowledge in allied health professionals. Other studies are required as very little research is available in this area.

Thomas⁽⁵⁾ suggested a need to promote increased interdisciplinary collaboration among future allied health professionals to provide evidence based care. Day⁽²⁾ concluded that increasing the number of nutrition courses taken by physical therapy students may lead to greater knowledge of nutrition.

CONCLUSION

Allied health professionals in India have poor knowledge of nutrition related topics and hence require more training at university level so that they can guide their patients/clients better if the need arises.

Limitations

Data was self-reported and given via an online survey with no supervision. Thus, there is the possibility that academic dishonesty occurred during the survey. There were only 20 questions presented to assess nutrition knowledge, which cannot effectively cover every aspect of nutrition.

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