

ORIGINAL ARTICLE

Prevailing practices, attitudes & awareness regarding micronutrients among health professionals in TelanganaAleem Mohammad¹, G Nagaiah², Akshay S³, Jitendra⁴¹Post Graduate, ²Professor and HOD, ^{3,4}Assistant Professor, Dept of Community Medicine, MNR Medical College, Telangana

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Aleem Mohammad. Prevailing Practices, Attitudes & Awareness Regarding Micronutrients Among Health Professionals In Telangana. Indian J Comm Health. 2014;26, Suppl S2:245-249

Source of Funding : Nil Conflict of Interest: Nil**Abstract**

Introduction: Micronutrients play a very important role in both promoting health and curing disease by health professionals. They play a central part in metabolism and in the maintenance of tissue function. It is important that doctors and other health professionals are aware of the evidence for the nutritional essentiality of these substances, and for the situations where an increased intake may lead to clinical benefit. **Objectives:** 1. To assess the knowledge of health professionals micronutrients and practices in prescribing in treatment. 2. To determine the measures followed by the health professionals in including micronutrients in their own diet. **Materials and Methods:** A pre-designed and pre-tested anonymous self administered questionnaire was used in a cross sectional study. **Results:** 70% of doctors said that they had enough knowledge about prescribing and counseling to patients regarding micronutrients. On comparing the knowledge of specialists about micronutrients with the general practitioners we didn't find any significant increase in knowledge with specialization. A large section of doctors 95% of agreed that nutrition plays an important role in treatment and prescription and counseling of micronutrients is needed. But 82% of doctors are not sure and 8% even strongly disagreed if their patients will follow a diet plan even if given. Most of the study participants felt they were not up-to-date about micronutrients. Majority of them attributed this to lack of time and being unaware of any structured resource. **Conclusion** There is a need to restructure about imparting micronutrients education among doctors. Greater efforts should be aimed towards imparting updates about micronutrients in doctors and other health professionals enable them to contribute positively towards a healthy society. More Studies should be carried out in healthcare professionals.

Key Words

Micronutrients; Diet; Doctors; Health Professionals

Introduction

Micronutrients play a very important role in both promoting health and curing disease by health professionals. They play a central part in metabolism and in the maintenance of tissue function. There is growing interest in the role of the micronutrients in optimising health, and in prevention or treatment of disease. Patients are availed micronutrients by broadly two ways other than the normal diet. One in which the Govt provides through national schemes and the other by doctors in treatment. It is important that doctors and other health professionals are

aware of the evidence for the nutritional essentiality of these substances, and for the situations where an increased intake may lead to clinical benefit (1). Innovative strategies need to be developed and tested not only to improve knowledge and attitudes but practices as well. Behavioural modification modules are also needed (2).

Rationale: Although Doctors and nurses are considered epitome of treatment in our society there is still a lacuna in knowledge gained and prescribing practices and following the same in one's own diet. Doctors should be torchbearers of healthy lifestyle. There are very few studies which have

captured the practices of prescribing micronutrients and its education to patients.

Aims & Objectives

1. To assess the knowledge of health professionals micronutrients and practices in prescribing in treatment.
2. To determine the measures followed by the health professionals of micronutrients in their own diet.

Material and Methods

A pre-designed and pre-tested anonymous self administered questionnaire was used in a cross sectional study. A convenient time and date was fixed with prior permission from Principal of the Institution and respective faculty. Confidentiality aspects was explained to the doctors and consent obtained. Specialists and post graduates data was obtained from a medical college and General practitioners data was obtained from Practicing GPs in Telangana. Data was entered into MS-Excel sheet. Chi-square test was used to determine the significance in comparison and percentages and proportions was used for analysis of data.

Results

Demographics: The study participants consisted of which 102 doctors of which 58 were males and 44 were females.

Regarding educational qualifications Specialists comprised 36%, Post graduates were 41 % and General practitioners were 23%. 68% of the doctors said that they had enough knowledge about nutrition.

A similar proportion of doctors 70% said that they had enough knowledge about prescribing and counseling to patients regarding micronutrients

On comparing the knowledge of specialists about micronutrients with the general practitioners we didn't find any significant increase in knowledge with specialization. Chi-Square= 1.69 Df=1 P=0.19

So the extra knowledge earned during specialization had no added dividends or we need to work on them equally regarding micronutrients. **Practices:** About 74% of study participants said that they counsel their patients about nutrition. More than 80% of the doctors were prescribing micronutrients generally with almost same number 82% prescribing in specific diseases in their treatment plans. Multivitamins were the most commonly prescribed micronutrients.

Of the 18% who were not prescribing any supplements majority of them said they had not enough time to prescribe micronutrients.

Dietary plan: 60% of doctors are aware of diet plan themselves. Only 31% of doctors followed a diet plan regularly. Out of those who were not following any dietary plan mostly it was attributed to lack of time 60% about following any dietary plan. 50% of doctors who had co morbidities like DM, HTN etc were themselves not following any dietary plan. **Nutrition in Treatment:** About 60% of doctors were involving a nutritionist in treatment. Mostly nutritionist was involved in DM, HTN by Physicians and in PEM, Postop care by Surgeons and paediatricians respectively. 60% of study participants said that their patients requested them to prescribe micronutrients. Doctors thought that most of the patients (71%) requesting for prescription of micronutrients felt that their role is for increasing strength and very few patients were aware that these are available in diet. All the doctors who participated in the study wanted to improve their knowledge and nutrition counseling skills. Most of the study participants wanted to improve nutrition by having getting frequent updates like CMEs and good Supplements to give patients. **Attitudes:** A large section of doctors 95% of agreed that nutrition plays an important role in treatment and prescription and counseling of micronutrients is needed. But 82% of doctors are not sure and 8% even strongly disagreed if their patients will follow a diet plan even if given. 73% of doctors are not sure if their patients are aware of micronutrients and their functions. This gives them the additional responsibility to counsel their patients about micronutrients. Most of the study participants felt they were not up-to-date about micronutrients. Majority of them attributed this to lack of time and being unaware of any structured resource.

Discussion

Very few studies have been conducted to capture the perceptions and practices of doctors regarding micronutrients. The rapid urbanization and changing lifestyles on the general population has contributed towards increased prevalence of both communicable and non-communicable diseases. Unfortunately we have not kept abreast with these changes and most of our resources are directed towards the curing the disease neglecting the non-

pharmacological part catered by nutrition which plays a big role.

Positively 68% of doctors said they had enough knowledge about nutrition and a similar number conveyed about micronutrients. The finding that specialists and General practitioners had no major difference in knowledge of micronutrient is worrying. Though the sample size is small this aspect needs to be probed further. This can be due to lack of emphasis on micronutrients in academic curricula. This also gives us an opportunity to work on them about micronutrients on the same grounds.

About 74% of study participants said that they counsel their patients about nutrition¹⁶. This is consistent with a study by Elsa et al which showed 70% medical students find nutritional counseling more relevant. (3,4,5)

Multivitamins were the most commonly prescribed micronutrients. Of the 18% who were not prescribing any supplements majority of them said they had not enough time to prescribe micronutrients similar to Hiddink et al (9). About 60% of doctors were involving a nutritionist in treatment (18). Mostly nutritionist was involved in DM, HTN by Physicians and in PEM, Postop care by Pediatricians and Surgeons respectively.

A large section of doctors 95% of agreed that nutrition plays an important role in treatment and prescription and counseling of micronutrients is needed. But 82% of doctors are not sure and 8% even strongly disagreed if their patients will follow a diet plan even if given similar to Buttris JL (7,8). This is a startling finding which lays emphasis for a stronger nutrition counseling and a follow up if necessary. This could be also an explanation of the gap between supplements provided by our national programmes providing the desired results.

60% of doctors are aware of diet plan but only 31% of doctors followed a diet plan regularly similar to Wallace et al (6). This was attributed to lack of time which needs to be addressed and they should be emphasized about the same (20). Surprisingly 50% of doctors who had co morbidities like DM, HTN etc were themselves not following any dietary plan. This is a serious concern and needs to be dealt urgently. Most of the study participants are not updated about micronutrients similar to Van et al (10). Majority who said no attributed to a lack of time (11, 12) and unawareness of any structured resource. But all the doctors who participated in the study want to improve their knowledge and nutrition counseling

skills (19). Most of the study participants wanted to improve nutrition part by having frequent updates through CMEs and good administrative support. A considerable section wanted motivation to be instilled too.

An integrated approach horizontally and vertically should be initiated not limiting to the regular curricula but a more holistic approach is needed to improve nutrition (13, 14) more so micronutrients in our management (15). Emphasis about nutrition and micronutrients should be laid right from Undergraduate curricula and should be carried to the top with the same enthusiasm. It should be made a regular part of our management in all diseases. There is a need also to make general public aware of Micronutrients and its importance and availing the same

Conclusion

There is a need to restructure about imparting micronutrients knowledge among doctors. Greater efforts should be aimed towards imparting updates about micronutrients in doctors and other health professionals enable them to contribute positively towards a healthy society. More Studies should be carried out in healthcare professionals.

Recommendation

An integrated approach horizontally and vertically should be initiated not limiting to the regular curricula but a more holistic approach in Healthcare Professionals is needed to improve nutritional more so micronutrients in our management.

Limitation of the study

The sample size is not very big but considering the limitation of resources and time and encompassment of all major specialties it brings a broad view. Nutritional practices of subjects were assessed only by means of self-report, potentially rendering our results less reliable. Because the survey was anonymous and completely voluntary, one can assume that results were reliably captured.

Relevance of the study

The Current study captures an overview about Micronutrients in Healthcare professionals. Clinical practices and attitudes of patients towards micronutrients is studied.

Authors Contribution

AS & J: Data Collection; GN: Compilation of Data; AM: Drafting of manuscript

Acknowledgement

I am deeply indebted to Dr Kishore.M, Dr Sowmithri, Dr Bhargavi. Dr Manoj Aravind needs a special mention for guiding me through various phases of project. Lastly my sincere thanks to all the doctors who participated despite their busy schedule and without whom this could never see the light of day

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Figures

FIGURE 1 IMPROVE NUTRITION PART OF TREATMENT

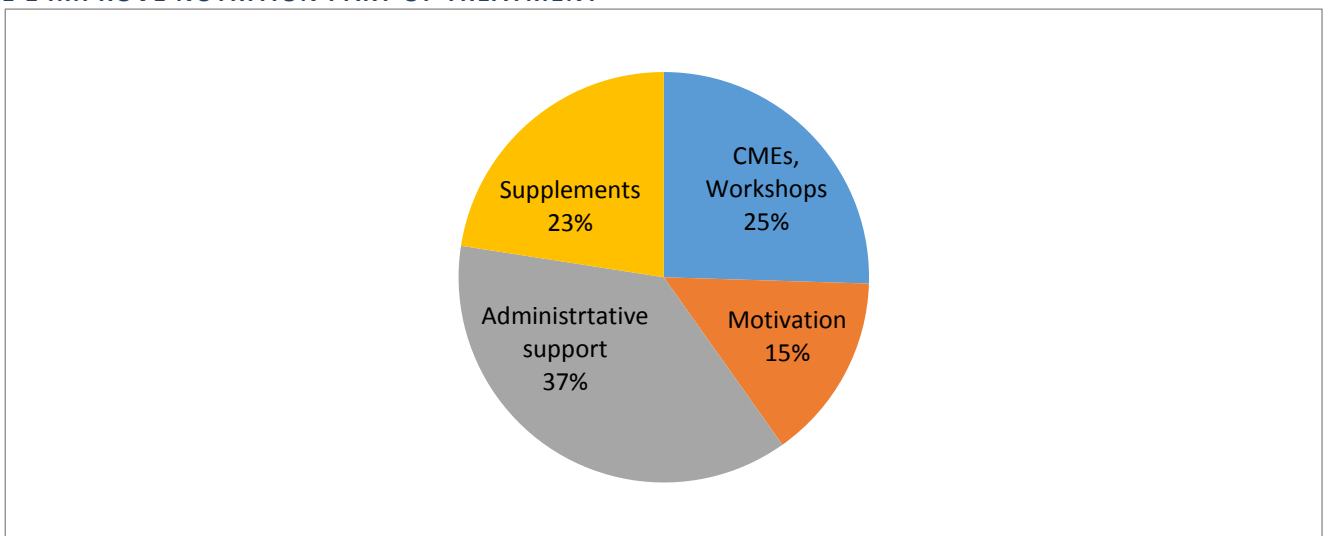


FIGURE 2 PATIENT WILL FOLLOW A DIET PLAN WITH MICRONUTRIENTS IF GIVEN

