ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 04 | April - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

HOMOEOPATHY IN NUTRITIONAL ISSUES INDUCED BY COVID 19 CRISIS AND BEYOND

Public Health

Dr. Tridibesh Tripathy	BHMS (Utkal University, Bhubaneswar), MD (BFUHS, Faridkot), Master of Health Administration (TISS, Mumbai), Ph.D. in Health Systems Studies (TISS, Mumbai), Homoeopathic & Public Health Expert,
Prof. Shankar Das	Dean, School of Health Systems Studies, Tata Institute of Social Sciences, Mumbai, Former Director, IIHMR, Delhi.
Anjali Tripathy	Senior Program Manager, Language & Learning Foundation, UP office, Lucknow
Dr. Umakant Prusty	Research officer (Homoeopathy), Regional Research Institute (Homoeopathy), Puri, Odisha under Central Council for Research in Homoeopathy, Ministry of AYUSH, Government of India.
Dr. Chintamani Nayak	Assistant Professor, National Institute of Homoeopathy, Kolkata, West Bengal, Government of India.
Dr. Rakesh Dwivedi	Professor, Co-ordinator, Master of Public Health (Community Medicine) Program, Department of Social Work, Lucknow University, Lucknow.
Dr. Mohini Gautam	Assistant Professor, Master of Public Health (Community Medicine) Program, Department of Social Work, Lucknow University, Lucknow.

ABSTRACT

The objective of the article is to reflect and learn about nutrition and know its roll out and concepts. Recapitulate the concepts in homoeopathy, adoption of nutritional concepts in clinical practice by homoeopaths. The article follows the following path in its content. The first path deals on what is nutrition and the difference between food security and nutrition Security. The next path is to deal on nutrition programs rolled out till date and nutrition related surveys done till date in our country. The path that succeeds this path is the life cycle approach that dwells upon the entire life starting from the first 1000 days of life till the old age. The article thereafter details the measurement methods of nutrition in children and adults. As the article deals on homoeopathy, the last three paths are related to homoeopathy and these are concepts related to nutrition in homoeopathic materia medica, how nutrition act as a therapeutic approach in homoeopathy and elaborates on new dimensions that needs to be included in the homoeopathic approach. All these approaches are seen in the background of the nutritional crisis created in the human body due to long COVID or persistent COVID. The approaches are also seen beyond the COVID crisis. The last path is obviously the Take Home Lessons and a suggested homoeopathic treatment protocol based on the contents from this article.

KEYWORDS

Homoeopathic Materia Medica, Homoeopathy, BMI, Malnutrition, SDG, Nutrire,

INTRODUCTION[7,1,16]

The concept of nutrition is related to the goal number 3 of the Sustainable Development Goals (SDG3) that says 'Good Health and Well Being- every citizen leads a healthy and productive life'. The word nutrition is derived from the Latin word 'Nutrire' which means to breastfeed. Obviously, the nutrition of the newborn starts with the colostrum feeding that is to be given ideally within one hour of birth and is technically known as Early Initiation of Breast Feeding (EIBF). It is significant to note that there has been only a 0.2% increase in this indicator in India from NFHS 4 to NFHS 5. The achievement of the indicator " children under 3 years who were breastfed within one hour of birth was 41.6% in NFHS 4 (2015-2016) and it only increased to 41.8% in NFHS 5 (2019-2021).

The definition of nutrition is very simple and straight. Nutrition is a stage between health and disease. Here the traffic from the health stage and disease stage is a two way process to the stage of nutrition. The following figure represents the definition.

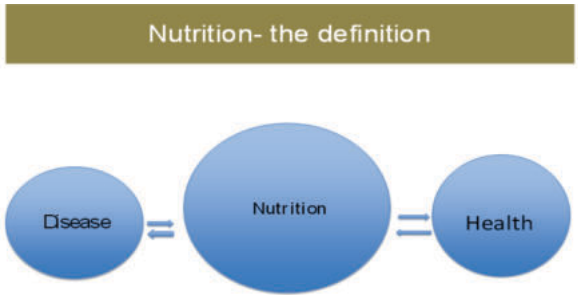

Figure1[1]

About the concepts related to nutrition[2,3,4,5,7,8,9,10,11,16,17,18]

The first concept to be understood is the concept of 'Food Security' that involves three words. These are Availability, Accessibility and Utilization. This means food should be available in optimum quantity, should be in the reach of the people geographically and be in the reach of their purse. Finally, the body should be in a condition to use the food for producing energy. Here, for instance, homeopathically, the constitutional and broad spectrum medicine 'Silicea' is to address when the food do not lack in quality and quantity (Q & Q) but there is imperfect assimilation in the body.

Thus 'Silicea' addresses stability of metabolism and issues of malnutrition. Currently, the availability and accessibility of food is addressed through National Food Security Act (NFSA) since 2013 and was also addressed through Pradhan Mantri Garib Kalyan Yojana (PMGKY) during the recent pandemic.

The second concept is nutrition security. One might be food secured but not nutrition secured. Nutrition security is attained when food has quality. It is obtained when one gets micronutrients from various food sources like whole grain cereals, pulses, Green Vegetables (GV), Green Leafy Vegetables (GLV), dry and fresh fruits and seeds.

Nutrition can be supplementary nutrition as well where the body needs the supply from outside in case of a deficiency. Examples of supplementary nutrition are the Mid Day Meals (MDM), therapeutic agents like vitamin tablets/capsules, Ready to Use Therapeutic Food (RUTF) that are supplied by UNICEF or WHO in humanitarian crisis or food crisis, Take Home Ration (THR) of Integrated Child Development Scheme (ICDS), nutrition for athletes & gym goers like 'Whey' (water of the curd) protein. The Direct Benefit Transfer (DBT) to tuberculosis patients in the Revised National Tuberculosis Control

Program (RNTCP) for eating nutritious food is another example of supplementary nutrition.
The opposite of supplementary nutrition is complementary nutrition which means it completes the need of the Infant and Young Children (IYCF) along with Breast Feeding (BF). IYCF starts from 6 months and ends at 2 years.

Complementary feeding is critical for overall development of the infant and young child as in the first 6 months of IYCF which is 6 months to 1 year the breast feeding meets only 75% of the child's energy. Subsequently in the 1year to 1.5 year period it meets only 50% of the child's energy and in the 1.5 year to 2 year period it meets only 25%. As per NFHS 5, only 3.2% increase was noted in India from NFHS 4 to NFHS 5 in the related indicator.

The indicator read " children age 6-8 months receiving solid or semi-solid food and breastmlik. The status of the indicator was 42.7% in NFHS 4 and it was 45.9% in NFHS 5. Nutrition interventions in programs like Revised National Tuberculosis Control Program (RNTCP) which is currently known as National Tuberculosis Elimination Program (NTEP) through DBTs is targeted till 2025, the year set to eliminate Tuberculosis (TB) from India.

Nutrition in India- A prelude[12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28]

The basic nutrition that an individual needs is a regular diet as per the socio-economic status of the family that starts with breast feeding for everyone. The nutrition through breast milk is optimally received when the child is fed through emptying one breast completely before moving on to another. While feeding from one breast, milk might flow from the other but the mother should not bother as it is the fore milk which is flowing out and this contains water that quenches the thirst of the child.

The hind milk has fat and sugar that satiates the appetite/hunger of the child. If the child is switched to the other breast soon, then the child only drinks water and the child's thirst is addressed while the hunger goes unaddressed. This faulty practice of breastfeeding is the one of the main reasons for malnutrition among breast fed children. Hence, the Take Home Lesson (THL) is in breast feeding, the fore milk quenches the thirst while the hind milk satiates the appetite. So, the breastfed babies first drink water then eat food unlike adults.

Historically, in our country, the Food For Work (FFW) programs that addresses food security helped build the Rumi Darwaja of Lucknow, Uttar Pradesh which is a piece of Mughal architecture. So nutrition has a role in archaeology as well. It was built by Nawab-Asaf-Ud-Daula to generate employment during the famine of 1784.

The country also went through various revolutions like green revolution in 1970s to increase the wheat output, white revolution to increase milk production, pink revolution to increase meat and egg from poultry and animals, blue revolution to increase production of fish, prawns, and crabs, horticulture revolution to increase production of fruits and vegetables.

The country also started the largest nutrition program in the world, the Integrated Children Development Scheme (ICDS) in 1975. The program actually started as Tamil Nadu Integrated Nutrition Project (TINP) as a pilot project in 1975 and universally covered all blocks of the country in 2006 through a Supreme Court order.

One of the uniqueness of the ICDS program is Vitamin A supplementation every 6 months for U5 children starting from the age of 9 months. Vitamin A is specific protection for children and the first dose coincides with the measles vaccination.

To address the accessibility component of food security, the Public Distribution System (PDS) was initiated in the country in June 1947 in its current form. Actually, it was initiated in 14th January 1945 during the Second World War. The concept of rationing started in India during the Bengal famine in 1940.

The Fair price shops of the PDS deals with Below Poverty Line (BPL) families, Above Poverty Line (APL) families and Antodaya card holders families who are very poor. The Targeted Public Distribution System (TPDS) started in June 1997.

In TPDS, the criteria for BPL card holders is a per capita earning of 32/day in Rural area and 47/day in urban area. APL card holders are above this earning level. Similarly, Antodaya scheme card holders have per capita earning of less than 250/month and these families receive 35kgs of food grains per month per family. Similarly other vulnerable families are categorized as priority house-holds who receive 5kgs of food grains per family per month.

Besides PDS, the public health system also runs nutrition program under National Health Mission (NHM) since 2005 through Nutrition Rehabilitation Centers (NRC) of NHM for Severely Acute Malnourished (SAM) children.

For adolescents, Weekly Iron and Folic acid Supplements (WIFS) where 60mg of Iron & 500mcg Folic acid tablet is given every week. These 4 tablets meet 40% of the body's need as the average loss of blood monthly through the menstrual cycle is 80ml i.e. 3.2 mg of Iron per month. A study in Nigeria concluded that per 40 ml loss of blood, there is 1.6 mg loss of Iron. Another 2013 study concluded that healthy women with normal senses lose on average 1.2 mg of Iron per cycle. Hence, it is inferred that girls aged 14-18yrs need 15mg of iron daily.

The Rashtriya Kishor Swasthya Karyakram (RKSK) was launched on 7th January 2014 to address this issue. It has 7Cs which are coverage, content, communities, clinics, counseling, communication and convergence. The National Iron Plus Initiative (NIPI) was launched in June 2014 to meet this need in the second phase of NHM to address anemia in 6-59 months (6 months to 5 years old) so that they are not deficient during their adolescence.

The National Nutrition Mission (NNM/'Poshan Abhiyan' in Hindi) was launched in the country since 2017 while the Anemia Free India (AMB- Anemia Mukt Bharat in Hindi) since 2018. The frame work of AMB adopts the (6×6×6) strategy where it covers 6 types of beneficiaries through 6 interventions that adopts 6 institutional mechanisms. Figure 2 gives the details of this strategy.

Figure 2- Anemia Mukt Bharat at a Glance

Nutrition is a cross cutting issue that involves the work of multiple ministries such as Women and Child Development (WCD), Food Preservative, Civil supplies & Consumer affairs, Animal husbandry & poultry, Fisheries, MOHFW, Petro Chemicals that deals with Pharmaceuticals and Ministry of Drinking Water and Sanitation. Basically, the ICDS and the Nutrition Mission are rolled out by the WCD ministry through the ICDS directorates at the state level.

Malnutrition- stages and manifestations[18,31,36]

Table 1- Various stages of malnutrition with manifestations in children and adults.

Names of phases	Target group	Status of nutrition	Status of body anthropometrically	Measurement tool
Phase 1	Children Under 5 years of age	Primary and Acute	Low Weight for Height (Note- the numerator and denominator are both dynamic as there is rapid change in weight and height in a U5 child.	Shakir's Tape that has three colour codings. The tape is also known as Mid Upper Arm Circumference (MUAC) tape. The tape is tied on the MUA and if the grip falls on red, the child is wasted, if yellow h/she on the borderline and if green, the child has normal weight for height.
Phase 2	-do-	Primary and Chronic	Low Height for Age (Note- the numerator is more dynamic in comparison to the denominator and hence it is a chronic phenomenon.	Weight and Height chart. Usually, at schools the height is marked on the wall and his/her status is known using the standard height for age chart of WHO.
Phase 3	-do-	Primary and Very Chronic	Low Weight for Age (Note- the numerator is more dynamic in comparison to the denominator and hence it is very chronic	Growth chart. The X axis denotes the age that start at 0 month and ends at 59 month. The Y axis denotes the weight in grams and kilograms. The growth curve that falls in red color is of an underweight child. Similarly, the yellow color is for the borderline and green for healthy. There are separate charts for boys and girls. The growth chart of girls is in pink color and that's how pink color is associated with women. These charts are managed by the Angan Wadi Workers (AWW) of ICDS of WCD ministry.
Low Utilization of food by the body	Children and adolescents	Secondary and long lasting	The body suffers from diseases that hampers metabolism i.e. anabolism and catabolism.	Weight, Height, Age and Milestones are the indicators to track growth and development

About the Nutrition Surveys[29,30,31,32,18,33,34,35,36,37]

There have been various committees and these were followed by surveys in the nation. It all started with the Bhore committee which had a comprehensive report in 1946 that also included nutrition. Next, it was Sokhey committee on diet and nutrition in 1947 followed by the Renuka Chopra committee on school health in 1961. Currently, school health comes under the Rashtriya Bal Swasthya Karyakram that looks for 4 Ds in children- Deficiency, Defects since birth, Diseases and Delays in milestones.

The Health Management Information System (HMIS) of WCD ministry through the ICDS is a source of data on nutrition. The District Level Household Survey (DLHS) held in 1999,2004,2008,2014 through 4 rounds. The Annual Health Survey (AHS) was held in 2011, 2012, 2013 in three rounds and in 2013, it was held in states like Assam, Bihar, Rajasthan, Odisha, Jharkhand, Chhatisgarh, Uttar Pradesh, Madhya Pradesh and Uttarakhand. covered. Rest of the states had DLHS in 2013.

The National Family Health Survey (NFHS) have been conducted since 1992 and 5 rounds have been conducted till date. The years are 1992-1993, 1998-1999, 2005-2006, 2015-2016 and 2019-2021. To fill the 10year gap from 2005-2015, HUNGaMA (Hunger and Malnutrition) Survey was done in 2011 in 112 rural districts of India where 20% of U5 children of the nation were the target group. It was supported by Naandi Foundation and as part of National Health Mission (NHM)'s Program implementation Plan (PIP), many of the states used this data for planning.

The Comprehensive National Nutrition Survey (CNNS) of 2016 was done for adolescents that included a detailed profile of both the adolescent girls and boys. The National Sample Survey Organisation (NSSO) surveys that started in 1950 to conduct large scale sample surveys throughout India show data on poverty and food consumption. During the pandemic, the food consumption status was given by another survey known as Coalition of NGOs report in 2020 reflected that food consumption in rural India was half because of COVID-19. Further, the questionable Global Hunger Index (GHI) put India ranked at 94th place out of a total of 107 countries. Government of India has challenged the contents of the report and even pundits have called the GHI as statistical garbage. The report of World Food Program (WFP) of 2020 informs that the food insecurity doubled across the globe in 2020.

COVID 19 & Life Cycle Approach[8,9,18,43]

The life cycle approach that should be adopted in future to deal with COVID 19 issues starts from the mother's womb. This starts from 270days of gestation and 730 days of first 2 years of life that makes the first 1000 days of life. Three basic indicators of nutrition are to be followed here. As mentioned above, these are EIBF, EBF and IYCF. However, these three are for the children in the age group of 0-2 years of age.

For the mother, the advice should be that during pregnancy the expectant mother should eat one meal more than what she eats generally while taking into her social, economic, cultural background and appropriateness. The ultimate goal is to get a baby of 2.5 kilograms of birth weight.

As already mentioned above, during the EIBF and EBF practices, the mother should empty one breast before moving to another. Similarly, in IYCF practices, the cereal: pulses ratio should be 2:1 in the home-made food, the consistency should be semi solid that should not fall from a spoon. The IYCF is practiced along with breast feeding.

The targeted audience should receive de-worm tablets while receiving iron and calcium as supplements. Further, the carbohydrate,protein and fat should be in the proportion of 70:20:10 in an adult's diet. It is also critical to note that it should be a life time habit to all cereals, all pulses, all vegetables, all green vegetables (GV) and all green leafy vegetables (GLVs), all fruits so that the diet becomes a balanced diet.

Measurement of Nutrition[18,38,39,40,43,48]

This section deals with the assessment of nutritional status and how to measure the nutritional stage in various age groups. It starts with children in 0-2 year age group where the head circumference is measured and instead of height, the length to weight is measured. In the next age group of children in 0-5 year age group, as mentioned above, the Weight/Height determines whether the child is wasted or not and if wasted, it is an acute phenomenon. Next comes the Height/Age that tells about Stunting and it is a Chronic phenomenon. Finally, the Weight/Age determines underweight which is more chronic.

Regarding the measurement tools, for W/H it is MUAC tape (Shakir's tape), for H/A it is weight to height chart and finally for W/A it is growth chart that was developed by Morseley. The current growth charts are based on the Multi Growth Reference Study (MGRS) of WHO done between 1997-2003 and these growth charts are with the AWWs of ICDS.

Similarly, for adults, Adolphe Quetelet, Belgian mathematician in 1832 developed Body Mass Index which is the ratio of weight in

kilograms/square of height in meters The range is if the BMI is in the level of 25kg/meter^2-29.9kg/meter^2, the person is overweight, if it is 30kg/meter^2 or more, the person is obese. Less than 18kg/meter^2 is low BMI and the person is thin which is similar to wasting in children.

The Waist to Hip ratio is another method where we divide the waist measurement by hip measurement. Any ratio greater than 0.9 for men and 0.8 for women shows obesity.

One of the easiest method is the string test where half of the string that measures your full height should fit into the circumference of your abdominal region.

Homoeopathic Materia Medica and Nutrition[44to58]

This section explores the relation between nutrition and homoeopathic material medica while citing examples from the content in the homoeopathic therapeutics. As the subject has been initiated in 18th century and it is still ongoing, there are some old terms and nomenclatures related to nutrition. Terms like adiposity, corpulency, plethoric, phlegmatic, somatic relates to obesity that means high BMI or high waist to hip ratio and failure in the string test. It is also mentioned as inclined/disposed to grow fat.

The following box gives the names of the medicines along with the indications/symptoms related to nutrition.

Box 1- Nutrition related examples from homoeopathic materia medica

- 'Atrophy, instead of fat' means Wasting.
- 'Withered, dried up and old looking' means Low BMI.
- One symptom of Acetic Acid in H.C. Allen's key notes is 'Wasting diseases of children'
- The bowel nosode Bacillus Gartner's Key note symptom is "malnutrition"
- Glycerinum improves the general state of "nutrition"
- Medicago Sativa/Alfaalfa is for disorders of "malnutrition"
- Abrotanum has the symptom 'Losing flesh while eating well' while living well is a symptom of Nat.Mur and Wasting in spite of a good appetite, which means there is no variety in diet.
- Aqua Marina- weakness, lack of reaction- the clinician has to find out the nutritional status in both children and adults.
- Calcarea Phos has emaciated children (wasting), slow in learning to walk one of the 4Ds of RBSK- Developmental delays, Defects at birth (functional defects like oozing of bloody fluids from umbilicus is covered under Calcarea Phos & oozing of urine from umbilicus is covered under Hyoscyamus. Hence, Calcarea Phos covers omphalitis which is infection of the umbilical cord. Disease and Deficiency are the last two Ds of RBSK.
- Food does not lack in quality or quantity, deficient nutrition under 'Silicea'
- Oleum Jec 3X is a protective medicine as it is prepared from Vitamin A and it is a specific protection for the human body as it not only addresses the night and day blindness but also the skin, hair, nails but also a nutrient.
- Calcarea Hypophosphorosa 3X acts as a Calcium Supplementation in homoeopathy.
- Medicines to increase the quality and quantity of breast milk like Galega & to decrease breast milk secretion to help in weaning that is covered under Lac Defloratum.
- Medicines like Thea (Thearubigins from tea) & Lycopersicum Esculentum are named as per the antioxidants. Esculentine-Q is used for obesity.
- Beta Vulgaris- Q has nitrates that reduce blood pressure (BP) through vessel dilatation. Advise to eat Chukandar or Beet root as Beta Vulgaris is its botanical name.
- Coffea Tosta has Vitamin B like properties when coffee is toasted.
- Zinc is a protective micronutrient and three compounds of zinc are used in modern medicine as a nutrient and in diarrhea. These compounds are Zinc acetate, Zinc Sulphate, Zinc Gluconate from which homoeopathic medicines are also prepared.
- Copper deficiency anemia can be addressed by 'Cuprum Met-3X'. Iron deficiency by 'Ferrum Met-3X'.
- Anemia in vegetarians can be addressed by 'Cobalt-3X' as vitamin B12 has a cobalt atom in its center.
- Knowing the source of the medicine help to understand nutrition better. e.g. Chenopodium is Bathua (Chenopodium in Hindi)
- In diabetes, Chromium can be prescribed in trituritions as Chromium is beneficial in diabetes.
- Lithium Carb-3X can be prescribed in mental disorders as it is a mood elevator.

Therapeutic Nutrition in Homoeopathy to deal with COVID19[43,44to58]

During COVID 19 pandemic peak, the lead author advised patients to take Food & Fluids. Sufficient water along with Bel fruit (Abel Moschus), Butter milk, Rice water, Sattu (Flour made from roasted Sorghum and Horse gram), Coconut water, Aam panna (Raw Mango pulp in juice form), Shikanji (Sweet lemon water), Curd in the 1st week of the infection when there was fever to maintain gut immunity. Bitter Gourd as a vegetable was a common prescription. No supplements were prescribed with Homoeopathic medicines as they seemed to complicate than help. No animal protein was advised & only plant proteins were allowed to be eaten. It was observed that people with anemia suffered more and above-mentioned therapeutics regarding anemia were advised.

They were asked to break the eating monotony in 24 hour cycle. A suggested diet plan that was advised by the lead author to all the infected patients is given below in box number 2.

Box-2- Diet plan to deal with COVID 19

- Breakfast- Drink at least 2 glasses of normal room temperature in empty stomach water followed by cereal based breakfast followed by tea or coffee.
- Bed tea is really Bad as it increases BMR falsely. A day by day plan for the entire week is given below
- Breakfast-Monday-Oats,Tuesday-Dalia (par boiled wheat or sorghum),Wednesday-Jau ki Sattu (powder from roasted sorghum),Thursday-Paneer (cottage cheese),Friday-Sagoo Dana (Balls made from Tapioca root), Saturday-Boiled Chana/Matar(Chick peas or grams) for vegetarians and Egg for non vegetarians, Sunday-freeday that means the patient could eat anything as per his/her choice.
- Along with a fruit preferably Banana as it is filling, gut friendly and a mood enhancer.
- Lunch-Rotate rotis (flat breads) made from all flours while rotating the pulses and vegetables.
- Evening- a portion of different fruits that are only seasonal.
- Dinner should be with brown rice, pulses and vegetables. This prescription helps as feel good chemicals like dopamine and serotonin from brown rice improves not only quantity but also quality of sleep.
- Use jiggery (Made from sugar cane or palm or coconut) more instead of refined sugar.
- Rotate all edible plant oils as these are made from different oil seeds and that addresses the phytosterols and antioxidants supply to the body.
- Balance between animal, plant and dairy proteins has to be addressed in the diet to protect the body from kidney related diseases.
- This approach applies all metabolic & lifestyle diseases. These life style diseases are managed not treated. The approach has to be different and unique.

Concept of Ectomorph, Endomorph and Mesomorph and Homoeopathic Miasms[55,59]

Nutritionally, there are three body types. These are ectomorph, endomorph and mesomorph. Ectomorphs are long and lean. Endomorphs are rounded with lots of muscle and body fat, a stockier structure and a slower metabolism. Mesomorphs are athletic and muscular, capable of gaining weight or losing weight easily as they have efficient metabolisms.

Therapeutically in homoeopathy, ectomorphs are syphilitic, endomorphs are sycotic and mesomorphs are psoric. Miasmatically, through nutrition, a homoeopath can categorize the body type into these three miasms and prescribe miasmatically. The suggested drugs are Syphilinum for ectomorphs, Thuja for endomorphs and Sulphur for mesomorphs.

The Future in Nutrition and Homoeopathy[43to58]

For students

During under graduation (UG), students should do field work in their respective home districts on nutritional programs roll out, dietary practices in the family, consumption of purchased food in the family, weigh the dry rations in the family as per daily consumption in the family to see calorific value.

They can also do studies on malnutrition among children with the help of ASHAs and AWWs. Students should see factsheets of Census, NFHS, CNNS, Bulletins of Sample Registration System (SRS), fact sheets of progress on Sustainable Development Goals (SDGs) and discuss in the class.

For Homoeopaths

All homoeopathic practitioners to read the chapter on nutrition in Davidson book (Chromium is good for diabetes, Lithium Carb is a mood elevator)

Buy a copy of Nutritive Value of Indian Foods by National Institute of Nutrition (NIN and read recent books on nutrition by practicing nutritionists.

They should know the cultural and food practices of the area and build upon the existing practices. e.g. It is a challenge to make people eat the fullydeveloped drumstick fruit and leaves in the North.

Advise all patients to cook GLVs in iron pot daily. This will help Bio Combination number 1 to give results. They should also address the folates & Iron issues through supplements if there is a deficiency.

Anemia also occurs because of Copper (Cu) deficiency. Here Cuprum Met 3X can be prescribed.

Prescribe Vitamin D3, Zinc & Vitamin B12 for Vegetarians people. Prescribe Cobalt-3X also as vitamin B12 is Cyanocobalamin and has a cobalt atom in the center.

Homoeopathy has also a strong area. Here, biochemics and some mother tinctures (that influences nutrition) are excellent nutrition for Livestocks, Poultry and Pets. The lead author has experience in treating poultry cases as well.

Homoeopathic approach- Current situation[42,47]

The issue of nutrition is a cross cutting issue and comes under the domain of entire body. The Essential Drug List (EDL) of Homoeopathy does not mention nutrition as one of the many disorders for which a list of 233 medicines besides the 12 biochemics, ointments & drops. The preferred potencies of the 233 medicines are only color coded with a color index. There is no clarity for which the medicine is to be given under nutritional conditions. It is highly vague & broad as it is a guideline only.

However, the list includes physical and psychological disorders that manifest secondarily to nutritional issues. Hence, through this the secondary physical and mental symptoms arising out of nutritional issues that are exacerbated by COVID 19 come under this domain.

Besides this, the ministry of AYUSH had suggested 'Arsenic Album' as the medicine for COVID 19 back in January 2020. So all affected population should adhere to the guidelines so that the evil effects of COVID 19 in the long run are reduced especially in co-morbid patients.

Homoeopathic approach- a new dimension[44to58]

The current article does not try to repeat the Materia Medica related to nutrition therapeutics. Instead, it approaches Homoeopathy through the eyes of the evolving methodical approach.

Taking cue from the clinical experiences of the lead author, the above prescriptions are based on Nosodes, Key Note and Isopathic method of prescription in homoeopathy. These medicines will also prevent the population from nutrition issues and as well as reduce morbidity & mortality. These medicines are immune boosters, excellent modulators & pave the way for the body to respond to treatment positively as it will keep the nutritional status of the body healthy. The importance of the issue of underlying inflammation is critical as co-morbid patients are more prone to thyroid issues.

A suggested treatment protocol

The treatment protocol to be adopted has been mentioned in various sections mentioned above. The details are mentioned below along with the reference to the sections that has been discussed above.

The first step is to adopt the diet plans that are mentioned in Box 2.

The second step is to stick to the contents of the section 'measurement of nutrition' and 'COVID 19 & life cycle approach'.

The third step is to follow the contents of Box 1.The fourth step is to apply the concept of therapeutic nutrition and the concept of three nutrition types and prescribe accordingly.

The fifth step is to adhere to the contents for homoeopaths under the future of nutrition. The last step is to conceptualize the concept of new dimension and adopt it with an open mind.

CONCLUSION

Many Homoeopaths may not agree to the concept mentioned above. The point is that targeted & treatment protocol homoeopathic approaches have to be followed in dealing with issues of nutritional disorders. This approach aims to reduce mortality & morbidity & homoeopathy will lag behind if it does not address mortality especially among the adults and very old patients. The homoeopathic fraternity has to adhere to the emerging challenges of nutrition related diseases to allow homoeopathy to come to the limelight. Currently, many homoeopaths are working as third medical officers on contractual basis under NHM at the district & block level but they do not use homoeopathy at all. They simply adhere to their routine work & in the process have forgotten homoeopathy completely.

Conventional homoeopathy is OK in private practice & in educational institutions but when you want to address masses; homoeopathy has to complement the existing treatment protocol guidelines that are in use. This nutritional issue is COVID induced. The traditional approach of treating the nutrition issues will not help here.

Homoeopathy has a big role to play to prepare the masses especially the children & the old to deal with viral diseases while strengthening their nutritional status. Adhering to the new approach through a standardized treatment protocol will only strengthen homoeopathic system of therapeutics in the long run thereby enabling it to deal with emerging challenges in future regarding virus induced nutritional issues.

These Corona viruses won't go from our lives. They will continue to mutate & new variants will continue to emerge. It is not possible for the man kind to wait for medicines for each variant. No single medicine can be a panacea for the emerging variants and the related nutrition issues. It is here that the cost effectiveness & clinical effectiveness of Homoeopathy will come handy for the public & private health systems while dealing with masses.

Limitation of the study

The current article is just a suggestive article in the field of nutritional therapeutics. The current study was basically a descriptive study where the emerging issue related to COVID 19 and nutrition was addressed. Hence, the article just suggests a treatment protocol that aims to make treatment easy at all levels.

Declaration

The authors declare that there was no funding received for this article. Professor Shankar Das, a co-author of this article was the Ph.D. guide of the lead author of this article at Tata Institute of Social Sciences, Mumbai. The lead author thanks Dr. Umakant and Dr. Chintamani for their inputs in the homoeopathic section & all the other co-authors for their input in the non-homoeopathic section of the article. The lead author declares that the homoeopathic section is only suggestive in nature.

Conflict of interest

There is no conflict of interest regarding this article.

REFERENCES

1. Faculty of Public health, Department of Nutrition, Mahidol University, Bangkok, Thailand.
2. IFPRI, International Food Policy Research Institute, https://www.ifpri.org> topic> foodsecurity.

3. National Food Security Act, GOI, 2013, https://nfsa.gov.in
4. Pradhan Mantri Garib Kalyan Yojana, PMGKY, NIC, GOI, https://indiabudget.gov.in/pmgky
5. Pradhan Mantri Poshan Shakti Nirman in India, PM POSHAN, https://pmposhan.education.gov.in
6. UNICEF, Saving Lives with RUTF, https://www.unicef.org>supply>stories>saving-lives>ready-to-usetherapeuticfood
7. Take Home Ration: Good Practices Among States/UTs, NITI Ayog, 2022, English, ISBN:978-81-953811-1-1.
8. USDA, Nutrition Facts, Whey Protein, 0.9 grams protein per 100 grams.
9. GOI, MOHFW, Infant & Young Child Feeding Guidelines, https://www.nhm.gov.in
10. GOI, Direct Benefit Transfer, Central TB Division, https://tbcindia.gov.in
11. National Tuberculosis Elimination Program, NTEP, https://nhm.gov. in>presentation>NTEP.pdf
12. GOI, Mother's Absolute Affection (MAA) program, http://nhp.gov.in>maa(mother's-absolut-affection)
13. Rumi Darwaja- UP Tourism, https://uptourism.gov.in>post>rumi-darwaja.
14. Green Revolution, White Revolution, Pink Revolution, Blue Revolution, Horticulture revolution, https://en.wikipedia.org
15. ICDS, WCD Ministry, http://icds-wcd.nic.in
16. Supreme Court of India, order dated 13.12.2006 on universalisation of ICDS.
17. Mission Indradhanush, RI program, GOI, MOHFW, immunization, National Health Mission, https://nhm.gov.in
18. GOI, MOHFW, IIPS, NFHS 5 fact for India, 2021.
19. Ration Card Details, https://nfsa.gov.in
20. Poverty Alleviation Report, C. Rangarajan Committee, 2014.
21. NRC, NHM, https://nm.gov.in
22. Ofojekwu M J N et.al, hemoglobin and serum iron concentration in menstruating nulliparous women in Jos, Nigeria, Laboratory Medicine, V44,I2, May 2013, pages 121-124.
23. Napolitano M et.al, iron dependent erythropoiesis in women with excessive menstrual blood losses and women with normal menses, multi center study, Ann Hematol, April 2014:93(4):557-63. E pub 2013, Sep 19.
24. Kapil U et.al, National Iron Plus Initiative: current status and future strategy, IJMR, Sep 2019, 150(3): 239-247.
25. GOI, Anemia Mukt Bharat Dashboard, https://anemiamuktbharat.info
26. National Nutrition Mission, https://www.india.gov.in>national-nutrition-mission
27. GOI, RKSK, https://www.nhm.gov.in
28. WCD, GOI, https://wcd.nic.in
29. Committees and Commissions, NIHFW, http://www.nihfw.org>ReportsOfNCC
30. RBSK background, National Health Mission, www.nhm.gov.in
31. Dandona R, A review of national health surveys in India, Bull World Health Organ, 1st April 2016, 94(4), 286-296A.
32. The HUNGaMA survey report, 2011, https://www.naandi.org
33. CNNS, 2016-2018, https://www.nhm.gov.in
34. NSSO Survey, 78th round, https://www.mopsi.gov.in
35. Rathore M, NGOs share in feeding people in India during pandemic in 2020, https://www.statista.com
36. Aiyar, S S A, Why the GHI is statistical garbage, TOI, Lucknow edition, 30th October 2022, All That Matters, Page 17.
37. World Food Program, Annual Report, 2020, https://www.wfp.org
38. MGRS, WHO, Child Growth Standards, https://www.who.int
39. Appropriate BMI and WHR, NIH, https://www.ncbi.nlm.nih.gov
40. Trust me I am a doctor, https://www.sonybbcearth.com
41. BMI, Wikipedia, www.wikipedia.com
42. GOI, PIB, Ministry of AYUSH, advisory for corona virus, January 2020.
43. Singh M & Saini S, Conceptual Review of Preventive & Social Medicine, second edition 2019-2020, CBS publishers & distributors Pvt Ltd, ISBN-978-93-88725-84-2.
44. Tripathy T et.al, Homoeopathy in COVID-19, A treatment protocol for second and third wave, Sch Int J Tradit Complement Med 4(6):86-90.
45. Tripathy T et.al, Homoeopathy in COVID 19, a multi stage & multi dimensional approach, ejbps, vol 7, issue 5, 263-266, ISSN: 2349-8870.
46. Murphy Robin, Lotus Materia Medica, B. Jain Publishers Private Limited, 6th impression, 2017, ISBN: 978-81-319-0859-4.
47. GOI, AYUSH, Essential Drug List, Homoeopathy, Department of AYUSH, Drug control cell, MOHFW, March 2013, www.indianmedicine.nic.in
48. Davidson, Principles & Practice of Medicine, ELBS 16th Edition, Longman Group (FE) Limited, ISBN- 0-443-04482-1.
49. Murphy R, Homoeopathic Medical Repertory, 3rd edition, B. Jain publishers (p) Ltd, 2017, ISBN-978-81-319-0858-7.
50. Phatak SR, A Concise Repertory of Homoeopathic Medicines, B. Jain publishers (P) Ltd, 2002, Reprint edition, ISBN-81-7021-757-1.
51. Allen, H C, Key notes and characteristics with comparisons of some of the leading remedies of the Homoeopathic Materia Medica with Bowel Nosodes, Reprint edition, B. Jain publishers Pvt. Ltd, 1993, ISBN-81-7021-187-5, book code, B-2001.
52. Boericke William, New Manual of Homoeopathic Materia Medica with Repertory, reprint edition, 2008, B. Jain publishers private limited, New Delhi, pages- 362-366, ISBN- 978-81-319-0184-7.
53. Hobhouse Rosa Waugh, Life of Christian Samuel Hahnemann, B. Jain Publishers Private Ltd, Delhi, Reprint Edition 2001, ISBN- 81-7021-685-0.
54. Paterson J, Introduction to bowel Nosodes, Paper presented at International Homoeopathic League council, Lyons, France,1949: as an addendum in H.C. Allen Key Notes, Reprint Edition, 1993.
55. Sarkar B K, Organon of Medicine by Hahnemann, M. Bhattacharya & Co. 1st edition 1955, 8th edition, 1984.
56. Phatak D S & Phatak S R, Repertory of the Bio-chemic medicines, B. Jain Publishers (p) Ltd, 2006 edition, 1st edition 1986. ISBN- 81-7021-723-7.
57. Boedler CR, applying Bach flower therapy to the healing profession of Homoeopathy, B. Jain publishers(p) Ltd, reprint edition 1998, 1st edition 1996. ISBN-81-7021-786-5.
58. Tripathy T et.al, Homoeopathy against VOC of COVID 19- Omicron strain, Cross Current International Journal of Medical & Biosciences, Volume 3, Issue 9, December 2021, 93-95.
59. Ectomorph, Endomorph and Mesomorph, GQ, https://www.gq.com