4. SPECIFICATION OF THE PROBLEM

Health is not only the mere absence of disease, it covers the total well being of the individual/community - social, physical and mental. Infact, health of mind and body is an indispensable component of good life, and is highest among the personal rights of human beings. Providing health care for more than 85 crores of our country men is. indeed a great challenge. Since independence, huge amount of money has been spent on improvement of health care by providing more hospital services, opening of primary health care centres in remotest areas of the country, and improving and expanding the other health services. But it is rather unfortunate that despite progress achieved during the last three decades and huge amount of money spent on health care delivery system, the level of health of our people still needs much improvement.

More than 76% of the Indian people live in village and vast majority of them are poor and illiterate, and stay in highly unhealthy conditions. Their ignorance about simple rules of nutrition, health and hygiene is further aggravated by widely prevalent superstitions and prejudices about the causation of diseases. The improvement in health standards of people can only be achieved through well planned nutrition and health education activities with active participation of people followed by strong referral services. Dutta (1982) rightly observed that simple knowledge about what, why and how of the disease must reach to people in easily understandable manner so that they develop the will to fight the disease. Effectively imparting such simple functional knowledge regarding health disorders can go a long way in controlling most of them.

Deliberate and sustained nutrition education has been recognized as a potent weapon for prevention and control of malnutrition and associated diseases (Murthy 1982). obviously, the good of these educational efforts ought to be beyond a mere transfer of informations. What is envisaged is to motivate and bring about behavioural changes among the community in, choice of foods, understanding of primary health care and family welfare, understanding of preventive, protective and curative role of nutrition, etc.

The nutrition education efforts in countrywide scale can broadly be categorized into three groups :

» Well controlled pilot level experimental projects on nutrition education, particularly in rural areas.

» Large scale public health nutrition programmes related to action intervention, and health delivery with a nutrition education component.

» National scale programmes using mass media such as radio and television designed to expose simultaneously large numbers of target population to nutrition and health oriented messages.

There are many instances where small scale experimental project of nutrition education have shown good results. The studies conducted by National Institute of Nutrition (NIN), Hyderabad in rural areas on supplementary feeding, locally developed weaning foods and other basic nutrition concept have resulted in good impact (Anonymous 1982). The obvious advantages of such limited purpose studies are many. First, the target audience is small and second, the messages can well be formulated with a full understanding of specific needs of target groups.

In case of large scale national nutrition programmes, not only the target covered is large but is also scattered geographically. Evaluation of some such large scale nutrition programmes (Applied Nutrition Programme, special nutrition programme, school lunch programme Indian Population Project and others) by NIN, Hyderabad have pointed to several factors as being responsible for poor impact of some of these programmes in the study areas (Anonymous 1982). Among the many observation made, the most important ones were:

» that feeding and education components were not linked.

» Programmes were considered as charity feeding by functionaries and community.

» Nutrition education component was not given due priority.

One can infer from above findings that bottlenecks of communication constituted by inadequate training, poor preparation of the community regarding aims and objectives of the programmes, lack of base line information about the community and their felt needs, have been responsible for the observed deficiencies in the programmes.

National scale attempts have also been made at nutrition and health education by using mass media such as printed media, radio and television. However, printed words can be used in communication of concepts, only among literate group. Because of prevailing low literacy level, it is of little use for the community. Thus use of radio and television is inevitable where very large audiences are required to be exposed simultaneously.

If we analyse all the categories of nutrition and health education programmes which had been running in the country in past and are being run at present in an impartial manner, it has been fairly evident that the factors responsible for the past failures are being repeated in present. Thus the scenario, especially in the frontier of nutrition education is very grim in our country.

It would be practically not possible to create a separate agency for

imparting formal and non-formal nutrition and health education on a nation wide scale to different segments and target groups of the population, primarily, due to cost - inhibitiveness and secondly, due to complex web of conservatism and deep rooted traditions in socio-economic set-up of communities. Therefore, as indicated in Nath (1982) also to impart effective functional nutrition and health education to population of different communities/target groups, suitable programmes must be devised by incorporating such demonstration approaches that are adapted to problems and learning patterns of specific populations/target groups.

Education, *John Ruskim sagaciously says, "does not mean teaching people know what they do not know. It means teaching them to behave as they do not behave"* (Benerjee 1994). This admirably depicts the purpose of education and befittingly justifies the requirement of nutrition education. Therefore, to educate the masses regarding importance of nutrition, a factor directly related to the welfare of an individual, his/her family and the community as a whole, proper application of messages and approaches is the greatest need of hour.

Radio (audio) and television (video) are effective media for educational purposes has been well established by many researches (Joshi 1987, Anonymous 1994). Chu and Schramm (1967) while summarizing hundreds of evaluative studies in the domain of educational television arrived at the conclusion that under given favourable conditions, children learn effectively from television and by and large, instructional television can more effectively be used for primary and secondary school students than for college stu-

dents. In a similar line, researches in India have also shown results in the favour of instructional television (Christiansen 1966, Agrawal 1981, Seth 1983).

Radio has also proved effective in imparting informal education to communities in various fields. In fact, it acted as a catalyst for green revolution in India during late sixties and early seventies (Sharma and Lal 1994). The farmers live in villages at different degrees of urbanization and their preference for utilization of different electronic media for gaining knowledge on modern agricultural practices is influenced by it . A study carried out in this regard indicated that radio ranks first for farmers living in high urbanized villages and second, in case if low urbanized villages.

Though sufficient literature is available on the role of electronic media in general education but not a single comprehensive study is known to author from India, where electronic media (either audio or audio - visual) was involved in imparting nutrition education to communities and analysing its impact on target audiences. In developed countries newspapers, magazines, books, television and radio constitute major source of nutrition information for the population of all segments of the society. In USA, a large scale survey of homemakers' food and nutrition knowledge revealed that almost 30% of the women interviewed learned about nutrition from mass media (Walker 1975) The nutrition centre of Philippines experimented with video vans to impart the knowledge of nutrition to rural folk (as given as Kumar 1992). The viewing of well structured nutrition programme was followed by the selling of supplementary nutrition product at nominal cost.

The result of the study was found to be very encouraging. The population exposed to this nutrition education programme significantly improved its knowledge regarding nutrition and also started practicing the knowledge gained in their day to day meals. Similarly, role of art - like songs, drama etc. has its own importance in imparting education in general and nutrition education in particular. Devadas et.al., (1975) attempted to investigate the scope for nutrition education in the elementary school programme. A theme "Importance of vitamin - A in human nutrition" was selected and taught through different methods viz.. skit, song, story telling with flash cards, demonstration and lecture to five groups of 25 children each. Tests were conducted to compare the effectiveness of the different methods of instruction. Results of the study indicated that teaching through songs was most effective method. The follow - up surveys showed that after exposing to nutrition education the consumption of protein rich foods, green leafy vegetables and fruits increased in the meal plans of the families to which the children belonged. More over, nutrition knowledge of mothers of such children had also improved considerably.

The food needs of various regions/parts of India. with a large populations spread over vast distances, varying terrains and ecological conditions, face two fold problems : (i) of ensuring adequate over all availability of food for constantly increasing population ; and (ii) achieving equitable distribution to ensure access of all section of population to the food they need (Sharma 1987). Inspite of the vast surplus, India still has vast population of malnourished persons. *Thar* desert region selected for present study constituted one of such pockets (Tewari 1993). Besides poverty the

very high illiteracy rate coupled with conservatism and age old traditions appeared to be main reasons behind large scale malnutrition and associated health disorders (especially in vulnerable segments i.e., children and women) prevailing in the population of *Thar* desert region (Dr. A.S. Faroda - personal communication). The iron deficiency anaemia is most conspicuous among nutritional disorders, especially in women folk, in *Thar* desert region and adolescent girls are particular victim of this nutritional disorder (Dr. S.L. Chopra - personal Communication).

The different geographical areas within same region also influence all aspects of life of their people (Ali 1964). Climatic conditions of an area, particularly that of rainfall has far reaching effect on the nutritional status of its people (Chambers 1983). In general, women and children are especially badly affected by the adverse climatic conditions (Schofield 1974, Palmer 1981). Though in general the climatic conditions in *Thar* desert are inhospitable but, specifically rainfall pattern in the region is quite variable (Venkateswarlu et.al., 1996). In the eastern fringe (Pali district), in transitional plains off Luni river basin, it varies from 400 - 500 mm and in irrigated north part it is around 250 - 300 mm. In arid western plains, which constitutes the major part of *Thar* desert region, rainfall varies from 300 mm in east (around Jodhpur district) to 150 mm in extreme west (Jaisalmer district). As a consequence of this variable rainfall pattern in the region, the structure and function of agro - ecosystems of the region vary from area to area. Although no authentic is available to support the existence of a nutritional gradient in the population of *Thar* desert but, while traversing the region author has sensed that there is every probability of presence of such gradient as the

agro - ecosystem in the various areas of the *Thar* desert region are influenced primarily by rainfall.

The present investigation was planned keeping in view the nutritional anaemia problems of *Thar* desert region's population. especially that of women folk and also that strong impact of electronic media like audio and video systems in disseminating the knowledge and messages. The major aim of the study was to compare the relative effectiveness of well structured folk songs and video programme in combination with or without iron folate administration in order to impart functional education on controlling anaemia. The target population was adolescent girls of selected villages of *Thar* desert region.

4.1 STATEMENT OF THE PROBLEM

NUTRITION EDUCATION ON ANAEMIA THROUGH VIDEO AND FOLKSONGS AMONG ADOLESCENT GIRLS OF THAR DESERT (RAJASTHAN)

4.2 EXPLANATION OF THE TERMS USED

4.2.1 **Nutrition Education**

Nutrition education implies action that results in change of behaviour pertaining to food patterns of individuals, families and communities. It afford opportunities for the individual to control the quality of his/her health and well being.

4.2.2 **Anaemia**

Here this signifies **nutritional anaemia** which include all the anaemias caused by an inadequate availability of building blocks for blood cells that contain the complex structured **hemoglobin**. Iron and folic acid deficiencies are important from the practical stand point because throughout Indian sub - continent nutritional anaemia is the resultant of these micro - nutrients' deficiency.

4.2.3 **Video**

Word '**video**' has originated from amalgamation of 'vision (visual)' and 'audio', and considered most effective modern electronic medium of communication to cross the barriers of illiteracy. Here it implies for the educational programme prepared by the author and produced in collaboration with Educational Media Research Centre (EMRC), Jodhpur. The programme is entitled **Anaemia***, which deals with the etiology of anaemia and its prevention, treatment and control. It aims at better learning of the problem for stimulating behavioural change in target group.

4.2.4 **Folksongs**

The very rich folk culture of *Thar* desert is in fact, common way of life

* The said video programme was accepted in October 1995 by Doordarshan for country wide class room teaching programme of U.G.C. It was first telecasted on 30th January, 1996 in second transmission between 1 and 2 PM. Hindi version of the programme was telecasted first on 28th August, 1996.

of its people. It is not only the testimony of the past, but also of contemporary life of the region. The melodious folksongs of *Thar* desert region have received national and international attention in recent times. In the context of present study folksongs imply the educational songs composed by the investigator to communicate message to target groups regarding the disease Anaemia and steps needed for its prevention, treatment and control. The songs are sung in the tune of some of the famous folk songs of the region.

4.2.5 **Adolescent Girls**

Adolescence is the period of development from pubescence to adulthood. It can also be referred as transitional period between childhood and adulthood. Biologically it is a period of rapid growth and reproductive organs also mature during this period. Culturally this is the period of transition from dependency of childhood to relative autonomy of adulthood. According to Hurlock (1973) the adolescence is the period of 12 to 18 years in case of girls and 14 to 18 years in case of boys. In the context of present study the term 'adolescent girls' include the girls of 12 to 18 years of age.

4.2.6 *Thar* **desert**

Lying between 24^{o} - 30^{o} N latitude and 70^{o}-74^{o} E longitude the arid western Rajasthan which is spread over an area of 1,96, 150 sq. km. is better known as *Thar* desert. For more details refer chapter - 3 'Profile of *Thar* Desert region'.

4.3 OBJECTIVES

The present investigator was carried out in arid* and semi- arid** tract of *Thar* desert region (involving two villages from each region). The broad objectives of the study were :

1. To prepare and produce a comprehensive video programme for imparting education on etiology of anaemia and its prevention, treatment and control. Also to compose and record the educational songs in same time on the tunes of some famous folksongs of *Thar* desert region.

2. To determine the impact of intervention on anaemia in target population (adolescent girls) through : supplementation of iron folate tablets; nutrition education through folksongs ; nutrition education through video; and through nutrition education by folksongs and video programme in combination with iron folate supplementation.

3. To compare the relative effectiveness of above mentioned strategies to control the anaemia among target population group.

4. To assess whether or not varied climatic conditions and cropping systems have relation with nutritional status of target group population, specifically in the context of anaemia.

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*Arid tract = Areas within the Thar desert region receiving rainfall less than 300 mm and have a very low humidity regime.
** Semi arid tract = Areas within the Thar desert region receiving rainfall more than 400 mm and have a relatively high humidity regime.

4.4 HYPOTHESES

To study objective 2,3 and 4, two major hypotheses were derived. The rationale for them is explained hereunder :

From the chapter - 3 ' Profile of *Thar* desert region' it has been quite clear that population pressure in the region has increased many folds in recent times. More over, the population of the region is caught in a web of conservation, traditions and taboos. The female population is victim of gender biasness upto an unprecedented level. The scenario of food availability is also not satisfactory. This state of affairs is leading to various problems in nutritional front. The protein - energy malnutrition (specific to children) and anaemia (specifically in growing female adolescent) are widely prevalent nutritional disorders in the region. In present situation educating people on efficient and better utilization of food resources, agricultural land, livestock and water is greatest need of hour. However, within the *Thar* desert region two major sets of environmental conditions exist viz., arid and semi-arid (only around Pali district) and accordingly sample village were located in both the tracts.

The cropping intensity and diversification of crops are much higher order in semi-arid tract because of relatively better environmental condition, as compared to arid tract, which has absolutely inhospitable environmental conditions.

4.4.1 **Hypothesis I.**

There is a significant difference in anaemia and related knowledge of of adolescent girls who receive iron folate supplementation alone and those who receive it with planned educational programmes.

I.1 Planned nutrition education on anaemia does not improve the haemoglobin level of adolescent girls in arid zone.

I.2 Planned nutrition education on anaemia does not improve the haemoglobin level of adolescent girls in semi-arid zone .

I.3 Planned nutrition education on anaemia along with iron folate supplementation does not improve haemoglobin level of adolescent girls in arid zone.

I.4 Planned nutrition education on anaemia along with iron folate supplementation does not improve haemoglobin level of adolescent girls in semi-arid zone .

I.5 Nutrition education on anaemia does not improve the knowledge of adolescent girls in arid zone .

I.6 Nutrition education on anaemia does not improve the knowledge of adolescent girls in semi-arid zone .

I.7 Planned nutrition education on anaemia along with iron folate supplementation does not improve knowledge of adolescent girls in arid zone

I.8 Planned nutrition education on anaemia along with iron folate supplementation does not improve knowledge of adolescent girls in semi-arid zone.

4.4.2 Hypothesis II.

There is significant difference on impact of planned educational programmes in combination with iron folate supplementation for controlling anaemia of adolescent girls in semi-arid zone as compared to arid zone.

II.1 The impact of video educational programmes in combination with iron folate supplementation for controlling anaemia in adolescent girls is significantly not higher in semi-arid zone as compared to arid zone.

II.2 The impact of educational folk songs in combination with iron folate supplementation for controlling anaemia in adolescent girls is significantly not higher in semi-arid zone as compared to arid zone.

4.5 LIMITATIONS

Nutrition education in itself is a subject of very wide scope which encompasses domain of art and science of nutrition and education. As the present investigation was carried out in a particular region on a particular nutritional disorder aiming at specific target group, thus the study was limited in some of the following ways :

» The investigation was limited to a specific region i.e., *Thar* desert.

» Only one nutritional disorder i.e., anaemia was taken into account and only adolescent girls formed the target group.

» The study was conducted in rural areas only.

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the investigator in production of film entitled "Anaemia". According to him 80% of rural women in *Thar* desert region are suffering from iron deficiency anaemia.

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