Original Research Paper

Nursing

"TO ESTIMATE PREVALENCE OF UNDER NUTRITION AMONG BRICK KILN WORKER IN KARAD CITY."

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ABSTRACT **Background:** The aim of the study isto assess degrees of under nutrition among brick kiln worker in Karad city. Objectives of this study isto find out the BMI of brick kiln workers. To assess degree of under nutrition among brick kiln workers. To find prevalence of under nutrition among brick kiln workers. To find an association between selected demographical variables and BMI. Material &Methods used for the study is the cross sectional. Study was conducted on 82subject's adult in brick kiln factory workers in Karad City. Purposive Sampling technique was used and data was collected through structured interview questionnaire to evaluate [BMI ≤18.5 KG/M^2] on 82 subjects.BMI based estimation of under nutrition BMI < 18.5 was 10 (12 %) while poor knowledge of under nutrition 72 (88 %.) Both these estimation comes under the high estimation category [12%] indicating a serious situation. The study was conducted on 82 Brick Kiln Workers Working in Karad City. The study adopted Health Belief Model (HBM) promotion model Theory. The estimate prevalence among brick kiln workers Body Mass Index mean[22.01], SD [4.306] & P value < 0.0001. Was higher than the mean pre- test score 10.69.

KEYWORDS : Structured Interview Questionnaires, Knowledge, Brick kiln Workers, prevention under nutrition, Prevalence.

Introduction:

Nutrition and health are the most important contributory factors for human resource development in the country. Nutrition is concerned with social, economic, cultural and psychological implications of the food eaten. Under nutrition among adult population is a serious public health problem internationally, especially in developing countries. Malnutrition in adult population puts them at a high risk of decreased physical development and increased incidence of infectious diseases. Malnutrition in adult population puts them at a high risk of decreased physical development and increased incidence of infectious diseases[1]

In Karad Taluka, there are many Brick factories where the brick kiln workers nevertheless, is extremely, scanty there were working without consuming adequate nutrients and there is no study from Maharashtra which has utilized BMI to assess under nutrition in both sexes. Low socioeconomic status, limited functional ability and social isolation are often major driving factors for under nutrition in the community, There were a few studies focusing on under nutrition especially on brick kiln workers. The brick kiln workers are more prone to get measurement using BMI to assess degrees of under nutrition in males as well as in females.

Literature Survey:

A .study related to under nutrition in Brick factory

The Study was conducted by Mihir Ghosh and Kaushik Bose Murshidabad district, West Bengal in 2016 conducted. The study was done under nutrition among rural Muslim population, especially the brick-kiln-workers may be a major health problem in India. A cross-sectional study of 505 male adult brick-kiln workers of Murshidabad district, West Bengal was conducted. The body mass index (BMI). Both these prevalence comes under the high-prevalence category (25.00%) indicating a serious situation according to World Health Organization recommendations.[2]

B. study related to BMI of under nutrition.

The study was conducted by Jaydip Sen, Uttar Dinajpur district, West Bengal, India community-based cross-sectional investigation was undertaken among 420 adult Bengali Muslim individuals (males:182; females: 238) aged 18-59 years and residing in rural areas of. Anthropometric measurements of height and weight were recorded using standard procedures and Body mass index (BMI= Weight/ Height kg/m2) was calculated. Prevalence of under nutrition (BMI<18.50 kg/m2) and overweight or obesity (BMI≥25.00 kg/m2) were determined using World Health Organization (WHO) cut-offs.[3]

C. Study related to Prevalence of under nutrition.

The study was done by Dr. Joysankar Hazarika2 Jorhat district of Assam state investigates12, December 2016 the health status of seasonal migrant workers of brick kilns. The sample for the study comprised of 371 seasonal migrant workers in the age group of 18-70 years including both sexes. A combination of multistage and judgment random sampling technique was used for the selection of the sample group from 17 brick kilns. It was found that though 62.5 percent workers had medium body built, 38.3 percent workers had underweight BMI (less than18.5 kg/m2) indicating the highest prevalence of malnourishment among 52.3 percent workers of 18 to 30 yrs of age[4]

Materials And Methods: A cross sectional of the study of 82 subjects adult in brick factory workers of Karad Taluka was conducted. Purposive Sampling Technique was used and data was collected through structured questionnaire to evaluate [BMI ≤18.5 KG/M^2] on 82 subjects.

SECTION 1Table No 1: Distribution of subjects according to socio-demographic variables

(N=82).

Sr. No	Socio-Demographic Variables	Frequency	%
1	**Age in years :**		
A	18-28	44	53
B	29-39	14	17
C	40 & above	24	29
2	**Gender**		
A	**Male**	35	43
B	**Female**	47	57
3	**Education**		
A	Illiterate	39	48
B	Primary	36	44
C	Secondary	7	9
D	Higher secondary	-	-
E	Graduate	-	-
F	Post Graduate & above	-	-

4	Monthly Family Income in Rs.		
A	≥32,050		
B	16020-32049		
C	12,020-12019		
D	8,010-12,019	47	57
E	4,810-8009	35	43
F	1,601-4,809		
G	≤1600		
5	Residence		
A]	Urban	3	4
B]	Rural	79	96
6	Type of diet		
A]	Mix	73	89
B]	Vegetarian	9	11

The data presented in Table -1 Indicate the majority of subjects 44 (54%) belong to the age group of 18 to 28 yrs. 24(29%)were above 40 yrs.

SECTION II- A: Assessment for checking BMI

Table 2.Distribution of BMI of brick kiln workers:

N=82

Categories of BMI	Frequency	%
Normal	55	67
Under nutrition	10	12
Over nutrition	17	21

The data presented in Table No.2 Normal brick kiln workers were 55(67%), under nutrition were 10(12%) and over nutrition 17(21%)

SECTION II- B: Pre-existing Knowledge of subject regarding under nutrition

Variables	Pre- existing knowledge		
Knowledge	Mean	SD	P value
	2.634	1.410	< 0.0001
Variables	Body Mass Index		
Body Mass Index	Mean	SD	P. value
	22.01	4.306	<0.0001

The data presented in Table.3.shows that level of knowledge regarding under nutrition in brick kiln workers. Pre-existing knowledge test mean [2.634, SD [2.634] & P value < 0.0001

The BMI among brick kiln workers Body Mass Index mean [22.01], SD [4.306] & P value < 0.0001, after the checking Body Mass Index [BMI] administration of structured interview schedule. The rates of **under-nutrition are 12 %** and normal is 88 %. It is nearest to the rates of low BMI (76 %). Estimation / of prevalence of under nutrition among brick kiln workers

Discussion:

In this study 82 subjects were included among that 10 (12%) belongs to category of under nutrition there BMI is ≤18.5 and the normal were 72(88%).The findings were found similar to A study Conducted By Ghosh M & Bose K et .al. The sample size 267 selected by Non probability purposive sampling technique. Nutritional status was evaluated using internationally accepted BMI guidelines of World Health Organization as follow to percentage of a population with BMI< 18.5 kg/m^2.Majority rates of under-nutrition are 23.4% and normal is 76.6%.

The similar study conducted by Letamo G, Navaneetham K in 2014 in Botswana. of Prevalence and Determinants of Adult Under-Nutrition in this study prevalence and patterns of under-nutrition. It shows that 19.5% of males and 11.5% of females were undernourished (BMI<18.5 kg/m2). In present study 43(52%) males subjects and 39(48%) Females were under nourished (BMI<18.5 kg/m2) About 23.7% of the male respondents aged 20–24 years compared to 15.6% of those aged 45–49 years were underweight.

The study was conducted in twelve brick fields in the Rejinagar area of Beldanga block of Murshidabad district, West Bengal in years 2014 to 2016 adult males (18-59 years), all adult male residents in the nearer villages of the brick field area.In our study. Male's responds age of 18-60 years were underweight, all adult male residents in the rural area.

Conclusion:
The study revealed that plan of checking Body Mass Index was effective as the level of knowledge of the subjects . The study conclude that there is a strong need to create awareness amongst the subjects regarding prevention & control Under nutrition among adults in the brick kiln factory.

Future Scope:
Nursing Administration: Nurses are in the pivotal role of health care delivery system and many responsibilities on their shoulders such as planning, organizing, and supervising there role of nurse administrator is to plan and organize health awareness programme for prevention of under nutrition.

Nursing Services:
Community Health Nurses are the link between the community and the health care system. She is a direct care provider. The activities are undertaken by Community Health Nurses in early prevention of under nutrition any decrease prevalence of under nutrition.

Nursing Education:
The nurse educator needs to assess the existing levels of knowledge and impact more insights into subjects that are important to the group. The updating knowledge through education help advanced new strategies to prevent under nutrition among brick kiln workers.

Nursing Research:
Based on the finding, the professional and student nurses can conduct further studies on knowledge, attitude and practices towards the Under Nutrition among the brick kiln factory workers. So that integrity of under nutrition can be prevented.

RECOMMENDATIONS
- Similar study may be conducted in the large scale for making a more valid generalization.
- A comparative study may be conducted between urban and rural subjects.
- Similar study can be undertaken to find out causes of under nutrition among brick kiln workers regarding Karad Taluka.
- Similar study can be done on to estimate prevalence of under nutrition and over nutrition among brick kiln workers at Karad Taluka.

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