

## Maharashtra University of Health Sciences, Nashik

**Inspection Committee Report for Academic Year 2025-2026**  
**Attendance Details/ Research Details/ Welfare Scheme Details**  
**\*\*\*All report must be available on web site**

**Name of College/Institute:- Institute of Nursing Education & Paramedical Sciences, Dombivli**  
**Faculty :- Nursing**

1	Attendance	} Month-wise Biometric attendance to be uploaded by the college on College Website  (No hard copies of attendance to be submitted to the University)
	Teaching Staff	
	Non-teaching staff	
	Hospital Staff	
	UG & PG Students	
2	Project	
	Research Articles/Publications	Yes
	Research Award(Student/Teacher)	---
3	<b>Utilization of Student Welfare Schemes:-</b>	
	Earn and Learn Scheme	---
	Dhanwantri Vidyadhan Scheme	---
	Sanjivani Student Safety Scheme	---
	Student Safety Scheme	---
	Book Bank Scheme	---
	Savitribai Phule Vidyadhan Scheme	---
	Bahishal Shikshan Mandal Scheme	---
4	<b>Sport participants/Other Activities:</b>	
	i) Information of Student(s) who participated University level & State level Avishkar Competition.	---
	ii) Information of Student(s) who participated in Regional Sport Competition & State level Sports Competition.	---
	iii) Information of Student(s) who participated in Cultural Activities.	TNAI
	iv) Does the college have NSS Unit?	No
5	Whether "Swaccha Bharat Abhiyan" implemented in College	Yes

**Here by I declare all relevant document uploaded are clear and visible on web site & are true as per my knowledge & Belief**

**Any Other, Please Specify:-**

**Date:-** 31/01/2025



**Dean/Principal Stamp & Signature**  
**PRINCIPAL**  
 Institute Of Nursing Education &  
 Paramedical Sciences  
 Dombivli (E)



July 5th, 2024

### To Whomsoever It May Concern

This is to certify that Ms. Susan Mary Jose, PRN -22050210610, has completed her project- based internship starting from 28.04.2024 to 05.07.2024.

Her project work was a part of the MBA (ONLINE LEARNING).

The project is Implementation of Hospital Information system in Hospitals, which includes research as well as industry practices.

She was very sincere and committed in all tasks.

For Qollabb EduTech Private Limited

A handwritten signature in black ink, appearing to read 'Vipendra Singh'.

Vipendra Singh  
Chief Executive Officer



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A handwritten signature in blue ink, appearing to read 'Principal'.

Institute of Nursing Education & Paramedical Sciences  
AIMS Foundation, Vadavli, Dombivli (E)

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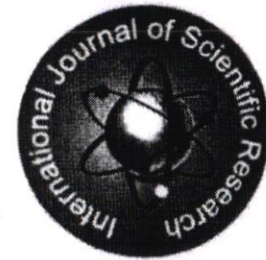
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# Certificate of Publication



*This is to certify that*

*Mr./Mrs./Ms./Prof./Dr. RAJALIN SHARIFA*.....

*has contributed a paper as author/ Co-author to*

## INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

*A Peer Reviewed, Referred, Refereed & Indexed International Journal*

*Title "A study to assess the knowledge and attitude regarding child rearing practices among working and non working mothers in selected urban area of Bangalore with a view to develop an informational booklet on child rearing practices."*

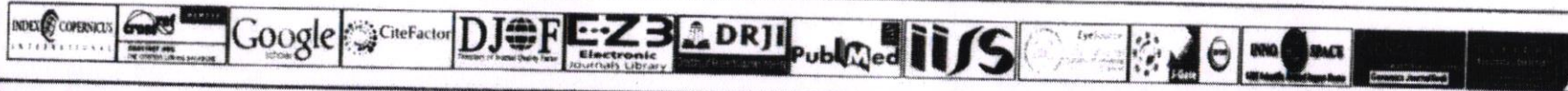
*and has got published in volume ..... 08 ..... , Issue ..... 03 ..... , MARCH-2019*

*The Editor in Chief & The Editorial Board appreciate the Intellectual Contribution of the author/co-author*

1172 *Executive Editor*

*Editor in Chief*

*Member, Editorial Board*



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# “A Research To Determine The Job Satisfaction Of Housekeeping Staff In A Tertiary Hospital.”

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## Abstract

**Background:** It is well known that hospitals in most countries are short on nurses, support staff, and cleaning staff. Job satisfaction, which is usually thought of as how an employee feels about his or her job, is important for both employees and institutions.

The goal of this project was to find out how happy the people who clean hospitals are with their jobs. How and what to do: In the housekeeping staff of a tertiary care hospital, a sociodemographic variables and satisfactory study was done. The study looked at 100 people who worked in housekeeping. The subjects were interviewed with the help of a semi-structured questionnaire that had been filled out. **Result:** Out of the 100 people who were interviewed, 83 percent were over 30 years old; 67 percent were men and 33 percent were women. This study shows that 56% of people who work in housekeeping are very happy with their jobs, 43% are happy with their jobs, and only 1% are not happy with their jobs. Most people who work in housekeeping are happy with their jobs. Most of those who were happy were over 30 years old, and more men than women took part in the survey.

### Introduction

A small-scale study found that housekeeping staff spent more time cleaning the environment, doing therapeutic activities, and boosting morale.

The National Health Survey plan said that hospitals should offer cleaning services for hospital wards (department of health 2000). "A ward-based non-clinical role centred on cleaning, food service, and maintenance to make sure the basics of care for the patient are right."

Job satisfaction surveys for housekeeping staff can be useful tools that tell them how well their programmes are working and help them fix any communication problems.

They can also be a good way for an organisation to find out how its employees feel about their work environment.

**Results:** TABLE 1: Distribution of sample as per demographic variables.

### Frequency and Percentage distribution Housekeeping personnel's (N=100)

Sr. No.	Demographic variables	Frequency	Percentage
1.	Age		
a)	Above 30 Years	83	83%
b)	30 and below 30 years	17	17%
2.	Sex		
a)	Male	67	67%
b)	Female	33	33%
3.	Working Experience		
a)	<2years	57	57%
b)	2to5 Years	23	23%
c)	5to10 years	8	8%
d)	>10 Years	12	12%

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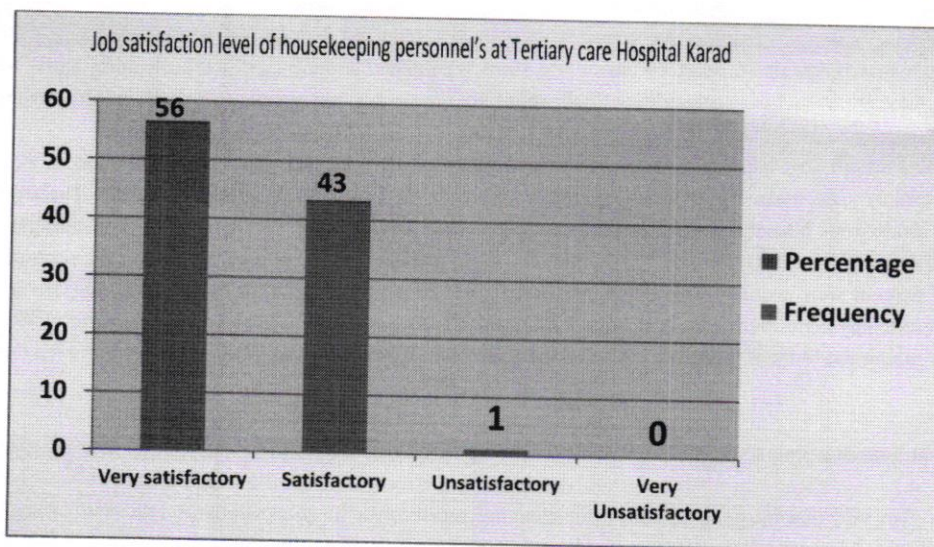
Results A total of 100 people were signed up, and their demographic information and answers to a questionnaire were recorded. Most of the people who took part, 83%, were over 30 years old. 67 percent of the people who took part were men. 42,4% of the people who took part had at least a bachelor's degree. 57% of the people working in housekeeping had more than two years of experience, and 12% had worked for more than ten years (Table 1).

Table -2 –Job satisfaction level of housekeeping personnel’s at Tertiary care Hospital .

Sr. No	Scoring scale	Frequency	Percentage
1.	Very satisfactory	56	56%
2.	Satisfactory	43	43%
3.	Unsatisfactory	01	01%
4.	Very Unsatisfactory	00	00%

The above table shows that most of the people who work in housekeeping are happy with their jobs: 56% are very happy with their jobs.

Graph-1 shows findings -Job satisfaction score among Housekeeping personnel’s:



Findings in above graph show that Job satisfaction among Housekeeping personnel’s majority 56% of personnel’s are very satisfactory with present jobs. 43% are satisfactory and one percent unsatisfactory due to their own health problems. No one is very unsatisfactory.

Table -3 Mean standard deviation:

Mean	Standard Deviation
61.01	7.75964

Table -3 findings shows mean standard deviation shows Mean 61.01& Standard Deviation 7.75964.

Table -4 Associations between socio-demographic variables and Job satisfaction among Housekeeping personnel’s at tertiary care hospital

Sr. No	Variables	Very satisfactory	Satisfactory	Unsatisfactory	Very Unsatisfactory	Chi-square	D.F.	P-Value	Inference
1.	Age								
a)	Above 30 Years	21	31	01	00	6.416	2	0.0404	S *

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b)	30 & below 30 yrs	05	12	00	00				
<b>2. Sex</b>									
a)	Male	50	32	01	00	4.017	2	0.1342	NS
b)	Female	06	11						
<b>3. Experience</b>									
a)	<=2years	11	20	00	00	13.208	06	0.0398	S *
b)	2-5yrs	16	07	01	00				
c)	5-10yrs	21	10	00	00				
d)	>10yrs	08	06	00	00				

The above table shows that the chi-square value for each age group was 6.416, and the p-value was 0.0404. Since  $p < 0.05$ , this means that our  $H_0$  is wrong. So, we can say that there was a link between age group and the level of job satisfaction among housekeeping staff at a tertiary care hospital. It means that the level of satisfaction goes up as the age of the housekeeper goes up. Based on sex, the chi-square value was 4.017 and the p-value was 0.1342. Since  $p > 0.05$ ,  $H_0$  is accepted, so we can say that there was no statistical link between sex and how happy housekeepers were with their jobs. The chi-square value for experience was 13.208, and the p-value was 0.0398, which means that  $p < 0.05$ , so there was a link between experience and job satisfaction among housekeeping staff. Satisfaction can't be measured just once; it needs to be watched and evaluated all the time. 4.

### Discussion:

In this study, 83% of the workers are older than 30 years, and 17% are younger than 30 years. Most workers have less than 2 years of experience, while 12% have more than 10 years. From a group of 100 people, 43% are happy with their jobs. 67% of the people in the study were men, and 33% were women. The Chi-square value was 6.416, and the p-value was 0.0404, which means that our  $H_0$  is not true. So, we can say that there was a link between age group and the level of job satisfaction among housekeepers. It means that the level of satisfaction goes up as the age of the housekeeper goes up. Since the Chi-square value was 13.208 and the p-value was 0.0398, which is less than 0.05, we can say that there was a link between experience and level of job satisfaction. Shrivani Deolia, Shreya Choudhary, et al., did a study that came to the same conclusions. On 100 employees at Sawangi, Wardha, Maharashtra, 52 were Class III workers and 48 were Class IV workers. The results showed that Class IV workers were slightly more satisfied with their jobs (35.04), which was statistically significant (0.011). Studies show that making changes to the workplace will help get employees more involved, which will increase productivity in organisations and job satisfaction among workers<sup>5</sup>. A study done by Poonam Jaiswal et al.<sup>6</sup> in 2015 found that communication, pay/salary, working conditions, organization's supervision system, co-workers, workload, benefits, career aspects, and rewards were the most important things that affected job satisfaction. For all types of respondents, there was a positive relationship between job satisfaction score and factor scores (units) of communication (0.133), benefits (0.110), working conditions (0.027), and co-workers (0.032), and a negative relationship between job satisfaction score and organisational supervision system (0.118), workload (0.093), rewards (0.035), pay/salary (0.034), and career prospects (0.017).

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- 8) <https://www.researchgate.net/profile/Samir-Singru-2>

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# An Investigation Into The Relationship Between Birth Weight And Maternal, Placental, And Demographic Factors

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## Abstract

The health of the mother and the anatomy of the placenta are the two key characteristics that are known to connect with low birth weight. The mother's health is essential to the development of the foetus. On the other hand, the placenta has to be fully grown and in good health in order for it to be able to transport all of the nutrients that are present in the mother to the developing baby. At the Maternity unit, a prospective study was carried out on a total of 180 moms who had recently given birth. Each mother in turn was asked to participate in the study when her child was being admitted, and this continued until the desired number of participants was reached. Among mothers who were over the age of 25, had an education level that was lower than higher secondary, and had a family income that was less than 15,000 rupees, correspondingly 33.3%, 35%, and 29.2% of their babies were born LBW. The level of schooling a mother had was found to have a significant association with her child's birth weight ( $p = 0.053$ ). 36.6% of LBW babies were delivered to women who had a history of preeclampsia (12.20), and 42.9% of LBW babies were given to moms who had a history of diabetes (3.9). 31.1% of babies born to moms who had caesarean sections (which made up 50% of all deliveries) and multigravid mothers (which made up 46.7% of all deliveries) were born LBW. There was a statistically significant difference discovered between the gestational age of the mother and the baby's birth weight ( $p 0.001$ ) According to the findings of the study, the risk factors for low birth weight babies are as follows: maternal age, low education and income, any chronic medical conditions, gestational age, and morphometric placental characteristics. According to the findings of this study, there is a strong association between the morphometric characteristics of the placenta and the birth weight.

**Keywords-** Birth Weight, Maternal, Placental, Demographic Factors

**Introduction:** The single most important risk factor in neonatal and infant health is low birth weight (LBW), which is defined as less than 2500 grammes. [1] Birth defects are present in 15.5% of all live births, which equates to around 20.5 million infants born each year across the world. [2] Low birth weight can occur in infants who are born prematurely (less than 37 weeks of gestation), in newborns who have been diagnosed with intrauterine growth restriction (IUGR), and in full-term infants. [3]

The health of the mother and the anatomy of the placenta are the two key characteristics that are known to connect with low birth weight. [4] The mother's health is essential to the development of the embryo. [7] On the other hand, in order to guarantee that the foetus receives all of the nutrients that are readily available from the mother, the placenta needs to be fully grown and in good health. [5] Comparative studies of maternal socio-demographic factors in a variety of countries, including sub-Saharan Africa, have shown that a young age or maternal age greater than 35, as well as lifestyle choices (such as engaging in physical activities) during pregnancy, are high risk factors that contribute to poor foetal growth and pregnancy outcomes. [6] It has been observed that placental factors alone are responsible for the growth retardation of neonates in 36% of cases of low birth weight. [7] Variations in the length, breadth, and

weight of the placenta, as well as any movements from a central insertion of the umbilical cord on the chorionic plate to an uneven velamentous insertion, are all examples of placental morphological changes. [8] These kinds of alterations have an effect on the efficiency of the placenta in terms of the growth of the vasculature sufficiently to fulfil the nutrient and oxygen demands of the developing embryo. [9] The weight of the placenta is used as a marker to determine the amount of surface area that is available for maternal-fetal nutrition exchange. [10]

**Subjects and Methods:** A prospective study on 180 mothers who had their babies in the maternity ward was carried out. Each mother in turn was asked to participate in the study when her child was being admitted, and this continued until the desired number of participants was reached.

**Sample size:** The sample size was 180 determined through calculation.,

At the time of recruiting, a consent after informed thought was sought. After that, a socio-demographic characteristic, maternal, and obstetric profile were all finished up. The mothers were monitored up until the time of birth. During the first hour after delivery, the neonates were placed on electronic weighing scales to be measured and measured. Immediately upon delivery, the placentas were analysed in terms of their weight, diameter, and the number of cotyledons that were present at the maternal surface.

Following the baby's birth, all of the infant's parameters were measured. The neonates considered to be at a high risk were not included in the study. When measuring the length of the crown and heel, the subject was positioned supine with their knees fully extended. For the purpose of measuring the head circumference of neonates, a measuring tape was wrapped around the head until it reached above the ears and eyebrows. Either the number of weeks of gestation or the time since the previous menstrual period was used to arrive at an accurate gestational age. The Protocol and Ethical Committee of the study before it was conducted. SPSS V20 was used to perform the analysis on the data.

## Results:

**Table 1: Demographic variables and birth weight:** [N=180]

Demographic variable	No %	Birth Weight Mean $\pm$ SD	No of LBW (<2500) (%)	No of NBW ( $\geq$ 2500) (%)
<b>1.Age of Mother:</b>				
$\leq$ 25 yrs	96(53.3)	2778.5 $\pm$ 510.8	22 (22.9)	74 (77.1)
> 25 yrs.	84 (46.7)	2775.3 $\pm$ 507.0	28 (33.3)	56 (66.7)
Test value & p value	→	(t=0.043 ;p=0.966)	$(\chi^2 =2.423$ ; p= 0.120)	
<b>2.Education of Mother:</b>				
$\leq$ Higher Secondary	80 (44.4)	2729.8 $\pm$ 578	28 (35.0)	52 (65.0)
> Higher Secondary	100(55.6)	2814.8 $\pm$ 441.8	22 (22.0)	78 (78.0)
Test value & p value	→	(t=0.043 ;p=0.966)	$(\chi^2 =3.744$ ; p= 0.053)	
<b>3.Monthly family income:</b>				
Rs $\leq$ 15000	86 (47.8)	2746.8 $\pm$ 420.8	25 (29.2)	61 (70.9)
Rs. > 15000	94 (52.2)	2804.6 $\pm$ 576.6	25 (26.6)	69 (73.4)
Test value & p value	→	(t=0.762 ;p=0.447)	$(\chi^2 =0.137$ ; p= 0.711)	

Table 1 shows that, Among mothers who were over the age of 25, had an education level that was lower than higher secondary, and had a family income that was less than 15,000 rupees, correspondingly 33.3%, 35%, and 29.2% of their babies were born LBW. The level of schooling a mother had was found to have a significant association with her child's birth weight (p = 0.053).

**Table 2: Maternal variables and birth Weight:** [N=180]

Maternal variable	No %	Birth Weight Mean ± SD	No. of LBW (<2500) (%)	No .of NBW (≥ 2500) (%)
<b>1. H/O Preeclampsia:</b>				
Yes	22 (12.20)	2657.0 ± 509.4	8 (36.4)	14 (63.6)
No	158(87.8)	2793.7 ± 506.7	42 (26.6)	116 (73.4)
Test value & p value	→	(t = 1.185 ;p=0.238)	( $\chi^2$ =0.921; p= 0.337)	
<b>2. Type of delivery:</b>				
Normal	90 (50.0)	2795.1 ± 455.7	22 (24.4)	68 (75.6)
Caesarean section	90 (50.0)	2758.9 ± 556.7	28 (31.1)	62 (68.9)
Test value & p value		(t = 0.477;p=0.634)	( $\chi^2$ =0.997; p= 0.318)	
<b>3.Gestational Age in (Wks) :</b>				
≤ 37 Preterm	17 (9.4)	2188.2 ± 422.5	13 ( 76.5)	4 (23.5)
> 37 Not -Preterm	163 (90.6)	2838.4 ± 476.4	37 (22.7)	126 (77.3)
Test value & p value	→	( t =5.408 ; p=0.001)	( $\chi^2$ =22.187 ; p= 0.001)	
<b>4.H/O Maternal diabetics</b>				
Yes	7 (3.9)	2763.4 ± 475.0	3 (42.9)	4 (57.1)
No	173 (96.1)	2777.5 ± 510.2	47 (27.2)	126 (72.8)
Test value & p value	→	(t = 0.072; p=0.943)	( $\chi^2$ =0.826; p= 0.364)	
<b>5.Gravida</b>				
Primi gravida	96 (53.3)	2785.9 ± 513.3	25 (26.0)	71 (74.0)
2 and above gravida	84 (46.7)	2766.8 ± 594.0	25 (29.8))	59 (70.2)
Test value & p value	→	(t = 0.250; p=0.803)	( $\chi^2$ =0.309; p= 0.578)	

Table 2 shows that, 36.6% of LBW babies were delivered to women who had a history of preeclampsia (12.20), and 42.9% of LBW babies were given to moms who had a history of diabetes (3.9). 31.1% of babies born to moms who had caesarean sections (which made up 50% of all deliveries) and multigravid mothers (which made up 46.7% of all deliveries) were born LBW. There was a statistically significant difference discovered between the gestational age of the mother and the baby's birth weight (p 0.001)

**Table 3: Placental Variables and Birth Weight:**

[N=180]

Placental variable	No %	Birth Weight Mean ± SD	No. of LBW (<2500) (%)	No .of NBW (≥ 2500) (%)
<b>1. Placental weight in (g):</b>				
≤ 500gm	40 (22.2)	2465.2 ± 587.4	23 (57.5)	17 (42.5)
> 500gm	140 (77.8)	2866.1 ± 446.1	27 (19.3)	113 (80.7)
Test value & p value	→	(t =4.653 ; p<0.001)	( $\chi^2$ =22.646; p< 0.001)	
<b>2. Placental Diameter ( cm):</b>				
≤ 20cm.	52 (28.9)	2554.9 ± 541.9	24 (46.2)	28 (53.8)
> 20cm.	128 (71.1)	2867.2 ± 465.7	26 (20.3)	102 (79.7)
Test value & p value	→	(t =3.885; p<0.001)	( $\chi^2$ =12.308; P< 0.001)	
<b>3. Number of Cotyledon:</b>				
≤ 17 Number	56 (31.1)	2598.9 ± 531.7	22 (39.3)	34 (60.7)
> 17 Number	124 (68.9)	2857.4 ± 477.1	28 (22.6)	96 (77.4)
Test value & p value	→	t = 0.401;p=0.689	$\chi^2$ =1.173; p= 0.279	
		(t = 3.246 ;p=0.001)	( $\chi^2$ =5.366; p= 0.021)	

Table 3 shows that there was significant correlation found between mean placental weight and birth weight of babies ( $p < 0.001$ ). Placental diameter was associated with birth weight of babies ( $p < 0.001$ ). Mothers having numbers of cotyledons  $< 17$ , delivered (39.3%) LBW babies and found significant association with birth weight ( $p < 0.001$ )

**Table 4: Fetal Variables and Birth Weight:**

[N=180]

Fetal variable	No %	Mean birth weight $\pm$ SD	No. of LBW (<2500) (%)	No. of NBW ( $\geq 2500$ ) (%)
<b>1.Length of Baby in Cms:</b>				
$\leq 50$	81 (45.0)	2591.0 $\pm$ 443.4	32 (39.5)	49 (60.5)
$> 50$	99 (55.0)	2929.2 $\pm$ 508.1	18 (18.2)	81 (81.8)
Test value & p value	→	(t = 4.702 ; p < 0.001)	( $\chi^2 = 10.098$ ; p = 0.001)	
<b>2. Head Circumference in (Cms.)</b>				
$\leq 35$	160 (88.9)	2714.8 $\pm$ 463.5	50 (31.2)	110 (68.8)
$> 35$	20 (11.1)	3275.0 $\pm$ 579.8	00.0 (0.0)	20 (100)
Test value & p value		(t = 4.949; p < 0.001)	( $\chi^2 = 8.654$ ; p = 0.003)	
<b>3.Apgar Score at 1- minute:</b>				
$\leq 7$	12 (6.7)	2628.0 $\pm$ 635.2	05 (41.7)	07 (58.3)
$> 7$	168 (93.3)	2787.6 $\pm$ 497.9	45 (26.8)	123 (73.2)
Test value & p value	→	(t = 1.053 ; p = 0.294)	( $\chi^2 = 1.236$ ; p = 0.266)	
<b>4.Apgar Score at 5- minute:</b>				
$\leq 7$	11 (6.1)	2676.9 $\pm$ 642.1	4 (36.4)	7 (63.6)
$> 7$	169 (93.9)	2783.5 $\pm$ 499.3	46 (27.2)	123 (72.8)
Test value & p value		(t = 0.674 ; p = 0.501)	( $\chi^2 = 0.431$ ; p = 0.512)	
<b>5. NICU Admission:</b>				
Yes	26 (14.4)	2777.5 $\pm$ 711.6	9 (34.6)	17 (65.4)
No	154 (85.6)	2776.9 $\pm$ 467.7	41 (26.6)	113 (73.4)
Test value & p value	→	(t = 0.007; p = 0.996)	( $\chi^2 = 0.708$ ; p = 0.400)	
<b>6. Fetal distress:</b>				
Yes	18 (10.0)	2822.2 $\pm$ 644.3	5 (27.8)	13 (72.2)
No	162 (90.0)	2772.0 $\pm$ 492.3	45 (27.8)	117 (72.2)
Test value & p value	→	(t = 0.398; p = 0.691)	( $\chi^2 = 0.000$ ; p = 1.000)	
<b>7.Gender:</b>				
Male	89 (49.4)	2850.5 $\pm$ 505.1	20 (22.5)	69 (77.5)
Female	91 (50.6)	2705.1 $\pm$ 502.5	30 (33.0)	61 (67.0)
Test value & p value	→	(t = 1.937; p = 0.054)	( $\chi^2 = 2.470$ ; p = 0.116)	

Table 4 reveals that crown heel length of baby and head circumference, gender showed significant co-relation with birth weight ( $p < 0.001$ ).

### Discussion:

In India, the percentage of newborns with a low birth weight ranges between 25 and 30 percent. [1] In the current study, moms who were older than 25 years, had an education level that was lower than higher secondary, and had a lower family income had a greater number of babies who were born LBW. The research carried out by TS Raghu Ramen et al. [11] found that 64.5% of low birth weight neonates were born to mothers whose families had a monthly income of less than Rs 2000. The research carried out by Sengupta et al. [12] found a strong correlation between LBW and low birth weight. The research that was carried out by Salunkhe and colleagues [13] found that there was a

  
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significant difference in connection to education (p 0.001). According to the findings of the research that was carried out by Chandra S. Metgud [14], maternal illiteracy was the risk factor that was strongly connected with the birth weight of the newborn.

In the current research, it was found that moms who had a history of both preeclampsia and diabetes were more likely to deliver kids with a low birth weight. According to the research carried out by Viswanatha Kumar HM et al.[15] and Fairley L et al. [16], hypertension was found to have a substantial association with newborns having a low birth weight. Pre-eclampsia has been found to have a substantial association with low birth weight in another study that was conducted by Larysa A [17] et al.

In addition, we discovered that there was a strong link between the mean weight of the placenta and the weight of the baby at birth (p 0.001). In the research carried out by Larysa A. et al. [17], it was discovered that there is a very substantial correlation between the weight of the placenta and LBW.

The LBW rate in the current study was 27.8%, which was comparable to the LBW rate identified in the study carried out by Avinash S. et al. [18], in which he discovered 105 (27.6%) LBW newborns.

In the current study, there were a total of 17 premature births, which represents 9.4% of the total. There was a statistically significant correlation between the length of gestation and the weight of the infant at birth (p 0.001), according to the research. According to the findings of a study that was carried out by Theresia B. Temu and her colleagues [19], there is a high prevalence of preterm deliveries, which is equal to 14.2%. An additional researcher, Avinash S. et al. [18], observed that the rate of premature birth was 19.5%.

According to the findings of this study, mothers who had more than one child delivered a higher percentage (29.8%) of babies who were born LBW. According to the findings of a study [20] carried out by Fairley L in Scotland, the presence of many births to the same mother as well as a larger total number of births is a common factor associated with a low birth weight. In a different study that was carried out by Viswanatha Kumar HM et al. [15], the researchers found that 65 percent of low birth weight infants were born to moms who had previously given birth to multiple children.

According to the findings of this research, the anthropometric characteristics of neonates, specifically their crown-to-heel length and head circumference, have a significant connection (p 0.001) with their birth weight. According to the findings of a study that was carried out by Achebe C. Ugochukwu [21] and colleagues, it was discovered that the circumference of the head and the length from the crown to the heel showed a substantial, linear, and positive connection with birth weight (p 0.001).

The **conclusion** of the study was that the risk factors of low birth weight were maternal age, low education and income, any chronic medical conditions, gestational age, and morphometric placental characteristics. According to the findings of this study, there is a strong association between the morphometric characteristics of the placenta and the birth weight.

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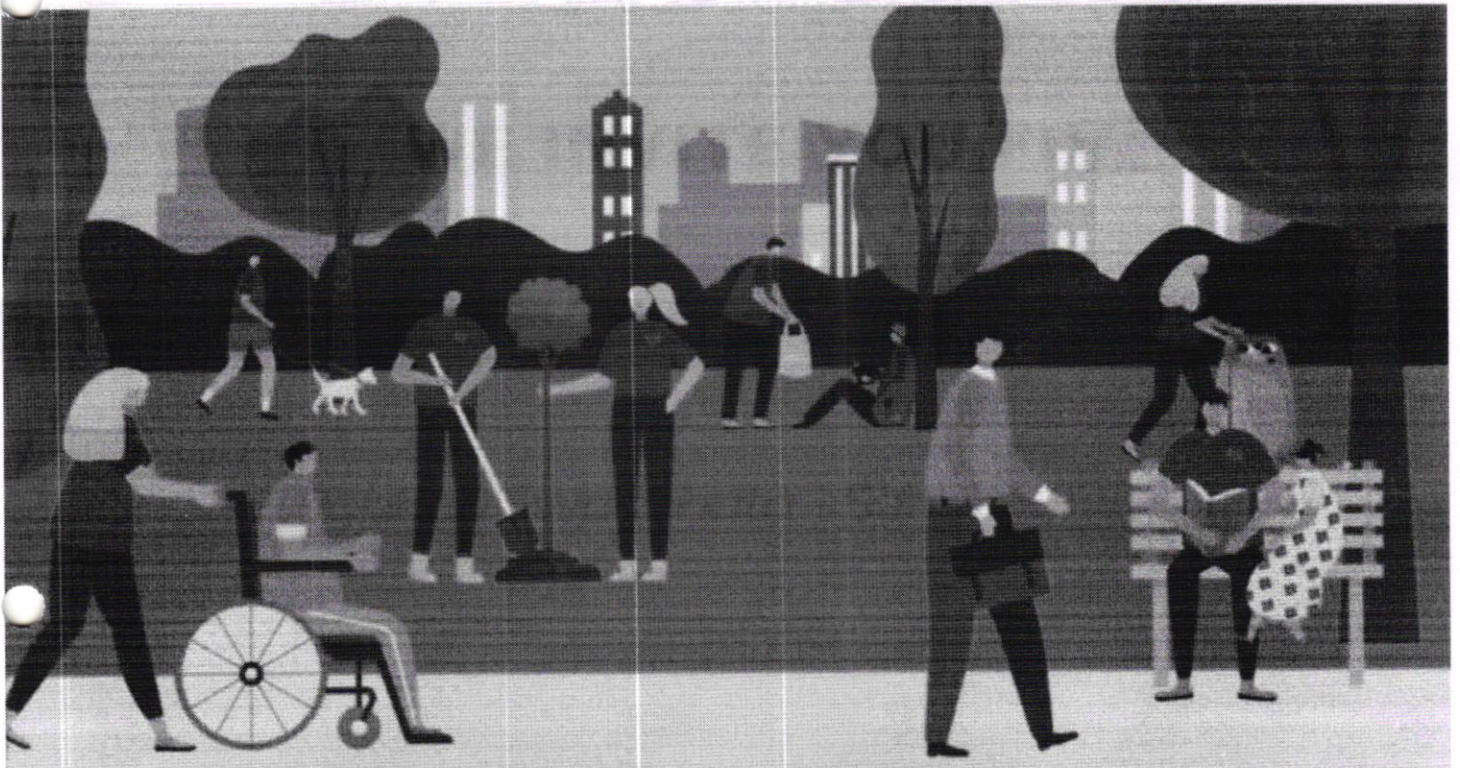
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# ***Swaccha bharat diwas celebration***

***Theme :- Swabhav Swachhata – Sanskaar Swachhata'***



**DATE : 04/10/2024**

**time : 10 AM - 11 AM**

**venue :At, college, vadavali.**

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*[Signature]*  
Principal

Institute of Nursing Education & Paramedical Sciences  
AIMS Foundation, Vadavli, Dombivli (E)

**SHT'S INSTITUTE OF NURSING AND PARAMEDICAL SCIENCE,  
AT VADAVLI, DOMBIVLI (E) TAL-KALYAN, DIST-THANE**

**REPORT ON SAWCCHA BHARAT ABHIYAN**

SHT'S Institute of Nursing & Paramedical sciences had organized programme on **7/10/2024**. It was conducted at **SHT'S INE & PS, Vadavli**. On this occasion our students cleaning up the college premises. Theme-Swabhav swachhata-sanskaar swachhata.

**DATE:** 7/10/2024  
**TIME:** 10 am-11am  
**VENUE:** College ,Vadavali

**ACTIVITIES**

✚ Cleanliness at college campus

The programme was organized by SNA adviser Ms.Divyani J & Co-adviser Ms.Pooja W. and shashikant S.


**Date:** Day Celebration on **07/10/2024** at 10.00Am-11.00Am

**Type of event:** Cleanliness

**Participants:** Students and Teaching Faculty

**Venue:** College

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Our College organized Cleanliness Drive under Swachh Bharat Abhiyaan Programme on the occasion of Gandhi Jayanti. The theme 'swabhav swachhata,sanskaar swachhata'.cleanliness of nature-cleanliness of culture,inspired individuals to take ownership of their environment and



collaborate for a swachh healthy nation. The main purpose of this programme was to create awareness among the students regarding Cleanliness and its benefits.

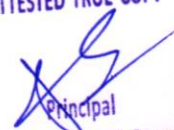
Under this programme, all the students and teaching staffs had to participate. Even teachers were the essential part of this drive. As a part of this Cleanliness Drive, we had to clean the whole college campus.

Our Principal started the programme by cleaning the corners of the play ground. Then the teachers and students followed suit. Some of us picked brooms and started our job.

And others went to the play ground and started picking wrappers lying scattered there. After collecting them they threw them in to the dustbins. After doing this job for one hour, we all assembled in the college garden.

Thereafter our Principal delivered the speech telling us the importance of sanitation. In the end we all took oath of keeping our home, locality and city clean. It was a unique experience for all of us. We were curious to be the part of this great drive that could have transformed the face of our country for ever.

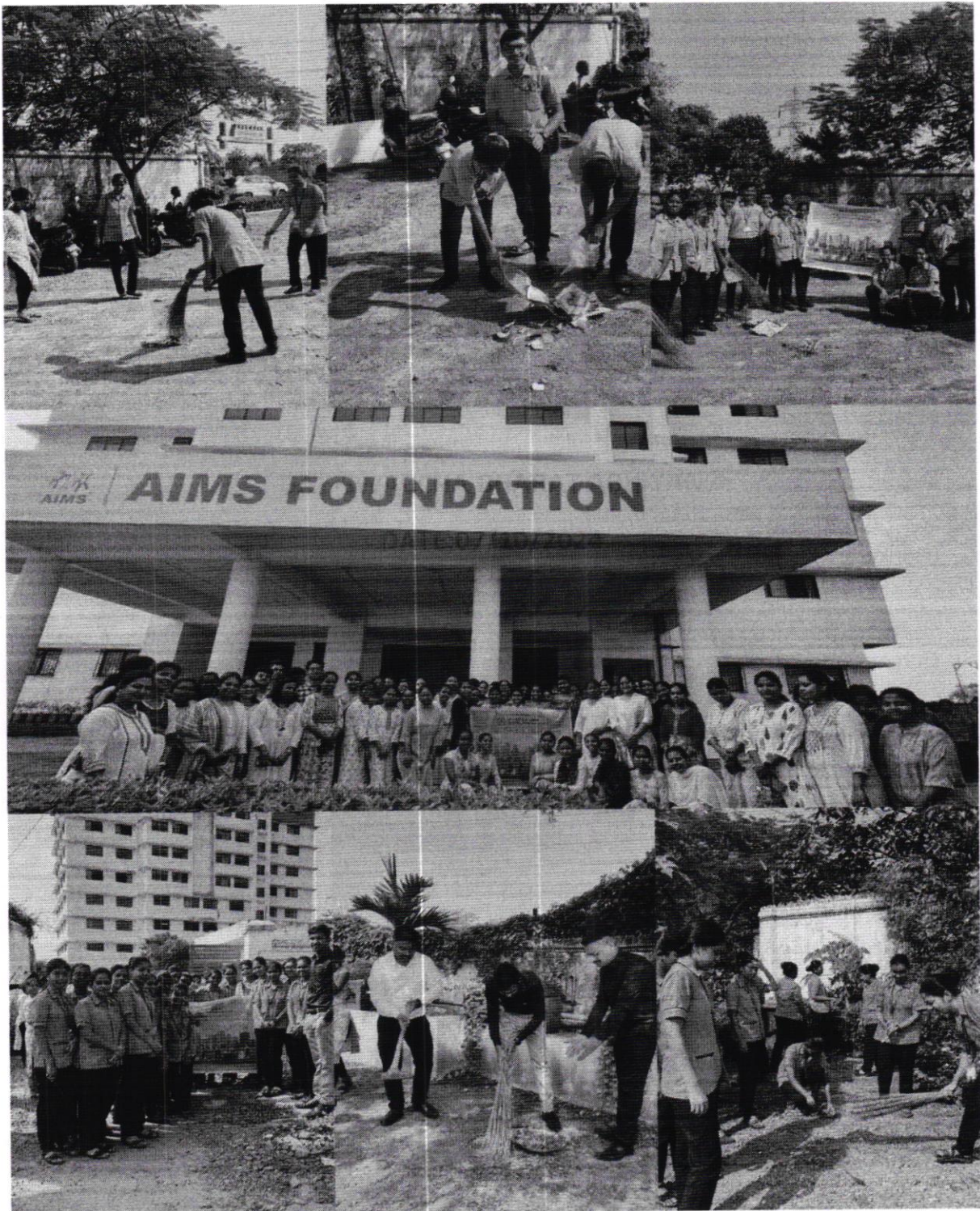
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**DAY-SWACCHA BHARAT ABHIYAN**

**DATE;07/10/2024**



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Institute of Nursing Education & Paramedical Sciences  
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inequalities caused by bad working conditions, such as inadequate nutrition, poverty, improper living conditions, and income inequalities, as well as lifestyle choices [35].

The social relationships of the mother while she was pregnant were another element that had the greatest overall effect on the child's birth weight. Indirectly affecting birth weight was a person's social ties, which, in turn, reduced overall levels of stress and increased levels of self-care. Poor social relations during pregnancy were found to increase the chance of low birth weight kids by as much as four times, according to the research conducted by Soogheh et al. [36]. The regulation of stress and the model of significant effect are the two hypotheses that have been proposed to explain the connection between social relationships and one's physical health. According to the main effect model, social contacts have a direct impact on one's health, both in a protective and preventative capacity. For instance, biological impacts and emotional behaviours that are not expressly recognised to be a supporter help can have a direct impact on one's health. According to the stress-buffering concept, positive social ties (such as feeling happy and content, feeling worthwhile, perceived sympathy and compatibility with others) have an indirect impact on people's physical health. As a result, social relationships can both directly and indirectly impact one's health [37-38].

An inappropriate amount of weight gain during pregnancy is a reflection of a shortage in necessary nutrients for the developing baby. The only source of nourishment for a foetus is the mother, thus if for some reason the mother does not have good nutrition, the foetus will not obtain the vital nutrients it needs for growth. There is a clear association between the weight gain of mothers during pregnancy and the birth weight of their children [39]. This means that an increase in a mother's weight during pregnancy will result in an increase in the birth weight of her child. This variable is affected by a variety of circumstances, one of which is the poor socioeconomic situations of mothers [34]. Researchers Adlshoar et al. [10] discovered that mothers in low-income families did not have good nutrition because they were unable to buy the necessary foods. This circumstance caused the mothers to have difficulty gaining weight during their pregnancies, which led to an increased number of babies being born with low birth weight.

**CONCLUSION:** According to the findings of the study, a mother's lifestyle can have a significant impact on the amount of weight the baby is born weighing at birth. It is important for the midwife to be aware of the mother's way of life because this will contribute to the improved health of the baby. The aspects of lifestyle demonstrated that either directly or indirectly, or both, affected a baby's birth weight. Therefore, given the importance and role of lifestyle as an important determinant that affects birth weight, attention and training interventions are important to promote healthy lifestyles in pregnant women..

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correlation discovered between cravings experienced during pregnancy, having an interval of less than one year between pregnancies, visiting an ANC clinic between three and six times while pregnant, and the birth weight of newborns (P less than 0.0001).

**DISCUSSION:** It is generally agreed that leading a healthy lifestyle is one of the most important factors in having a healthy and happy pregnancy. There is growing recognition in the research community [27–29] of the significance of maternal lifestyle factors such as nutrition and physical activity in relation to the outcomes of childbirth. When it comes to assisting health professionals in guiding women towards adopting a healthy lifestyle, there is a rising respect for interventions that include aspects of health psychology and behaviour change methods (BCTs). These are also utilised to educate and encourage expectant mothers to lead healthier lifestyles throughout their pregnancies, which leads to healthier birth outcomes [30].

According to the findings of this study, those mothers 11 (100%) worked more than five hours a day, watched less than an hour of television, slept for six hours at night, slept for half an hour during the day, did not engage in physical activity, consumed non-vegetarian food once a month, consumed two meals a day, did not purchase food from outside sources, did not go outside with relatives, went to a friend's house only once, experienced cravings during pregnancy, had an interval of less than Between three and six pregnancies resulted in the delivery of babies weighing less than 2.5 kilogrammes at birth. There was a statistically significant association found between the number of hours spent working during pregnancy, the number of hours spent watching television, the number of hours spent sleeping at night, the number of hours spent sleeping during the day, exercising during pregnancy, consuming a diet that included meat products, the number of meals consumed daily, the frequency with which one purchased food from a restaurant, and the number of times one went outside with relatives. House calls on friends and acquaintances The time that passes between pregnancies, The total number of patients who visited the ANC clinic and The average weight of newborns at birth (P 0.0001)

According to the findings of a study that was carried out by Shobha Rao and colleagues [23], higher levels of maternal activity during early as well as mid-gestation were connected with lower levels of mean birth weight.

According to this study, the social relationship was the factor that had the highest influence on birth weight overall. It was found by Mahmoodi Z et al [24] that lifestyle, career (-0.263), and social interactions (0.248) had the most significant impact on birth weight overall. According to the findings of the analysis of lifestyle factors, each of the lifestyle factors either directly, indirectly, or both affected birth weight. Therefore, in light of the significance of the lifestyle as a factor in determining the weight of the newborn, attention and training interventions during the antenatal period are essential for the purpose of promoting healthy lives.

The most significant factor in determining a baby's birth weight was the mother's level of physical activity. The physical lifestyle of the mother has an indirect effect on the birth weight of her child because it influences the stressful conditions that the mother is exposed to, which in turn leads to incorrect health-related behaviours, nutrition, and weight gain during pregnancy in the mother. In other words, if the mothers' physical conditions are unfavourable, they will be influenced directly by the physical difficulties and indirectly by the danger of increased stress, and they will be more likely to give birth to infants who are below the average birth weight. Therefore, the physical lifestyle is not only a risk factor, but also a highly powerful driver of LBW since it influences birth weight both directly and indirectly, as well as indirectly through other factors that act as intermediaries. According to the findings of earlier studies [31–34], a mother's physical condition and the elements relevant to it were found to have a correlation with the unfavourable outcomes of pregnancy, including low birth weight.

The working conditions are contingent on factors such as the socioeconomic standing of the family, the mother's social level, and the individual's reputation. People from lower social classes or with less education are more likely to be subjected to adverse working conditions. These factors include physical demands, work shifts, exhaustion, lengthy working hours, carrying loads, standing, and heavy physical tasks. The material deprivations and economic

**Table 4: Questions related to pregnancy and Birth weight of baby: [N=75]**

Questions related to pregnancy	Birth weight		Chi-Square	P-value
	<2.5 kg	≥2.5 kg		
<b>1. Craving:</b>				
Yes	11(100%)	59(92.1%)	18.277	<0.0001
No	0	5(7.8%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>2. Interval between two pregnancy: in years (y):</b>				
< 1	11(100%)	0	122.85	<0.0001
1-2	0	52(81.2%)		
3-4	0	8(12.5%)		
> 5	0	4(6.2%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>3. Number of visits in ANC clinic:</b>				
<2	0	0	58.401	<0.0001
3-6	11(100%)	12(18.7%)		
7-10	0	0		
≥10	0	52(81.2%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>4. Hb level in 3<sup>rd</sup> trimester (g/dl):</b>				
10-14	0	55(85.9%)	108.93	<0.0001
8.5-10	0	55(7.8%)		
6.5-8	0	4(6.2%)		
<6.5	11(100%)	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>5. Weight gain in (kg):</b>				
< 6	11(100%)	0	127.85	<0.0001
6-10	0	51(79.68%)		
11-12	0	13(20.31%)		
>12	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>6. Birth order of baby:</b>				
1 <sup>st</sup>	11(100%)	50(78.1%)	58.727	<0.0001
2 <sup>nd</sup>	0	4(6.2%)		
3 <sup>rd</sup>	0	5(7.8%)		
>3 <sup>rd</sup>	0	5(7.8%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>7. Help of husband in household work:</b>				
Yes	1	8(12.5%)	3.529	0.1713
No	10	56(87.5%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		

Year(y), Kilogram (kg), Hb gram per 100ml (g/dl) \*\* Significant

According to the data presented in the table above, only mothers who craved 11 times or more during their pregnancies, had an interval of less than one year between their pregnancies, and went to an ANC clinic between three and six times while pregnant had babies who weighed less than 2.5 kilogrammes at birth. There was a statistically significant

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According to the data presented in the table above, mothers who fed their babies a non-vegetarian diet at least once a month, ate two meals per day, and refrained from consuming any food from outside sources while they were pregnant were more likely to have babies with birth weights lower than 2.5 kilogrammes. The birth weight of newborns was found to have a statistically significant association with eating non-vegetarian food once a month, eating two meals a day, and not consuming food from outside sources while pregnant (P 0.0001), all of which were determined to be important factors.

There was not a statistically significant association established between the number of cups of tea consumed in a day while pregnant and the birth weight of newborns (P 0.0001; statistical significance level d.).

**Table 3: Social relationship during pregnancy and Birth weight of baby: N=75**

Social relationship during pregnancy	Birth weight		Chi-Square	P-value
	<2.5 kg	≥2.5 kg		
<b>1. Times of going outside with relatives in (w):</b>				
Never	11 (100%)	3(4.6%)	101.38	<0.0001
Once in a (w)	0	51(79.6%)		
Twice in a (w)	0	5(7.8%)		
More than twice (w)	0	5(7.8%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>2. Hours (h) spend with neighbour:</b>				
<1	3	36(56.2%)	7.688	0.1037
1-2	8	21(32.8%)		
2-3	0	7(10.9%)		
>3	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>3. Participation of any social functions:</b>				
Marriage	3(32.8%)	36(56.2%)	6.668	0.1545
Religious functions	8	22(34.3%)		
Birthday functions	0	6(9.3%)		
Festivals	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>4. Visits of friend's house:</b>				
Never	0	64(100%)	75.000	<0.0001
Once	11 (100%)	0		
Twice	0	0		
More than twice	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		

**Hour (h), (w) = week. \*\* Significant**

According to the data presented in the table above, all of the babies whose mothers delivered throughout their pregnancies weighed less than 2.5 kilogrammes at birth if the mothers never went outside with relatives or friends during their pregnancies. There was a statistically significant correlation established between the number of times pregnant women went outside with their relatives and visited a friend's house at least once during the course of their pregnancy and the birth weight of their babies (P 0.0001).

There was not found to be a statistically significant association between the amount of time spent with neighbours or participation in any social activities during pregnancy and the birth weight of babies (P 0.0001).

  
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2	0	55(85.9%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>5. Type of exercise:</b>				
Aerobic	0	47(73.4%)	85.550	<0.0001
Anaerobic	0	5(7.8%)		
Both	0	0		
None	11(100%)	12(18.75%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		

The table 1 reveals that babies whose mothers had a birth weight of less than 2.5 kilogrammes were delivered to mothers who worked more than five hours a day, watched less than one hour of television, slept for six hours at night, and took only half an hour's rest during the day. These mothers also did not engage in any form of physical activity while pregnant. There was a statistically significant association found between the amount of hours spent working, the amount of time spent watching television (in hours), the amount of time spent resting during the night (in hours), the amount of time spent resting during the day (in hours), and the amount of exercise that was done during pregnancy (P 0.0001).

**Table 2: Nutrition during pregnancy and Birth weight of baby: [N=75]**

Nutrition during pregnancy	Birth weight		Chi-Square	P-value
	< 2.5 kg	≥ 2.5 kg		
<b>1. Eating non-vegetarian diet: in (w)</b>				
Once in a (w)	0	64(100%)	75.000	< 0.0001
Once in a three (w)	0	0		
Once in a month (m)	11 (100%)	0		
Once in a two month (m)	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>2. Number of meals in a day:</b>				
2 times	11 (100%)	0	150.00	< 0.0001
3 times	0	5(7.8%)		
4 times	0	12(18.75%)		
> 4times	0	47(73.4%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>3. Frequency of having food from outside: in (w)</b>				
Never	11 (100%)	7(10.9%)	101.96	< 0.0001
One time in a (w)	0	47(73.4%)		
Two times in a (w)	0	10(15.6%)		
More than two times in a (w)	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>4. Number of times drinking tea in a day (d):</b>				
Never	1(9%)	9(14%)	3.362	0.4992
1time/d	2(18%)	9(14%)		
2times/d	8(72.7%)	46(71.8%)		
≥3times/d	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		

Hour (h), (w) = week. Day = (d), months (m), \*\* Significant

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**MATERIALS AND METHODS:** In order to determine the lifestyle of the mother throughout pregnancy and the weight of the infant at birth, a quantitative approach and a retrospective study design were utilised. The data was acquired from 75 moms who had normal deliveries by employing the technique of purposive sampling. These mothers had registered at a prenatal clinic and were planning to deliver their babies in the labour room at Krishna Hospital in Karad. The study was carried out in India. The information was gathered by conducting interviews according to a predetermined schedule. For the purpose of assessing the mothers, selected anthropometric maternal measurements such as height in centimetres, weight in kilogrammes (kg) at registration, weight gain during pregnancy, lifestyle and dietary history by recall method, and laboratory parameter of blood haemoglobin in the third trimester were collected from each mother. During pregnancy, lifestyle factors such as physical activity, nutrition, social relationships, and behaviours served as the study's independent variables. The weight of the baby at birth served as the dependent variable in this study. The ethics committee at KIMS granted permission to proceed, which was achieved. Considered to be Karad for the University. After obtaining legal approval from the hospital authorities and obtaining informed consent from each respondent, the data was collected. The data that was acquired were examined in light of the aims and purposes of the study. Under the direction of the statistician, a plan for data analysis was formulated and established. SPSS version 16 was utilised to perform both descriptive and inferential statistical analyses on the gathered data. Frequency, proportion, and inferential statistics are all examples of descriptive statistics. A 2 test was done to determine whether or not there was a correlation.

## RESULTS:

**Table 1: Physical activities during pregnancy and Birth weight of baby: [N=75]**

Physical activities during pregnancy	Birth weight		Chi-Square	P-value
	< 2.5 (kg)	≥ 2.5 (kg)		
<b>1. Hours (h) of work:</b>				
2-3	0	50(78.1%)	133.6	<0.0001
3-4	0	5(7.8%)		
5	0	9(14%)		
> 5	11(100%)	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>2. Hours (h) of watching TV:</b>				
< 1	11(100%)	5(7.8%)	53.969	<0.0001
1-2	0	59(92.18%)		
3-4	0	0		
> 4	0	0		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>3. Rest at night: Hours (h):</b>				
5	0	0	95.572	<0.0001
6	11(100%)	0		
7	0	5(7.8%)		
8	0	59(92.18%)		
<b>Total</b>	<b>11 (100%)</b>	<b>64(100%)</b>		
<b>4. Rest at day: Hours (h)</b>				
½	1(100%)	0	108.93	<0.0001
1	0	0		
1 ½	0	9(14%)		



promotion of health [13]. The findings of research conducted over the course of the past few decades at reputable scientific centres located all over the world indicate that social variables are more powerful than other health determinants. Social determinants structure, which include education, income, sex, and race; social determinants intermediate, which include lifestyle, access to food, psychosocial factors, and behavioural factors; and underlying factors of socioeconomic policies, which include macroeconomic and social policies (labour market, housing, culture, and social values) [14]. These key health determinants are education, income, sex, and race. These determinants have an effect not only on one another but also on health as a whole [14]. According to this, lifestyle is an intermediate determinant [15], which is regarded a significant predictor of general and reproductive health [16,17]. Based on this, lifestyle is a determinant [15].

McDonald proposes that a lifestyle can be broken down into seven categories: diet; use of tobacco, alcohol, and drugs; physical activity; occupational variables; social ties; self-care and stress; and stress [18]. From a biological point of view, some studies have attempted to explain the effects of factors such as nutrition and weight growth during pregnancy, inappropriate health behaviours (such as the use of tobacco and alcohol), ethnicity, age, and area of residency on the prevalence of LBW [9,19-22]. In spite of this, researchers in India have looked into the connection between the lifestyles of mothers and low birth weight babies from the point of view of the socioeconomic factors that influence health.

The birth of a child is recognised as a significant moment in one's life. Rural women in developing nations like India face a heavy physical workload, consisting of both farm labour and domestic tasks. This is especially the case in rural communities. Therefore, energy expenditure may be a significant component that affects the connection between maternal nutrition and birth weight [23]. Indirectly affecting birth weight was a person's social ties, which, in turn, reduced overall levels of stress and increased levels of self-care. Occupational lifestyle has an indirect effect on birth weight because it has an effect on the stressful condition. Educational level is considered to be the most fundamental socioeconomic factor because it affects future occupational opportunities and income. Occupational lifestyle has an indirect effect on birth weight. This factor has the ability to minimise unfavourable outcomes of pregnancy by providing the individual with educational experiences and abilities, such as enhancing the quality of their home environment and nutrition [24].

There are a number of factors that can lead to low birth weight and premature birth, but one of the most critical risks is prenatal exposure to smoking, which can include mother smoking as well as exposure to passive smoke. There is a correlation between low birth weight and increased morbidities and mortalities in newborns. Even before conception, a person's way of life might already have an effect on the health of their future child. Because the developing baby will be completely dependent on their mother's body for nourishment and protection, it is prudent for women to make changes to their lifestyle prior to becoming pregnant in order for them to eliminate any bad habits or risk factors that may compromise their health while they are pregnant [25].

The health of the mother throughout pregnancy can have an effect on the total weight of the baby at delivery. Monitoring pregnancies and screening for difficulties are both part of what is known as antenatal care (ANC), which can help lower the health risks for both women and their babies [26]. Intrauterine growth and development is one of the most susceptible processes in the human lifecycle, and abnormalities in this process can have long-lasting and dramatic effects on subsequent stages of life. Intrauterine growth has traditionally been evaluated in the setting of underdeveloped countries by looking at the newborn's birth weight. The weight of an infant at delivery is not only a reliable index of intrauterine growth but also a sensitive predictor of a newborn's chances of survival, growth, and long term physical and psychological development.

# Precautionary Baby Weight Related To Pregnancy And Delivery Style Of Life

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## Abstract

In this context, the infant's birth weight is considered to be one of the most reliable and significant health markers for assessing the infant's overall health. Low birth weight is one of the most prevalent health issues in the world today, as defined by the World Health Organization (WHO), which identifies it as occurring in infants with a birth weight of less than 2,500 grammes. The research on women's lifestyles during pregnancy and their influence on the weight of their babies at birth was carried out using a variety of different materials and methods. The primary goals of the study were to determine how women's lifestyles change during pregnancy and how much of an impact lifestyle has on the weight of newborns. The design of the study was a retrospective one. The approach of purposive sampling was utilised in order to pick seventy-five moms who had normal deliveries at Krishna Hospital in Karad. The information was gathered by conducting interviews according to a predetermined schedule. The analysis of the data included both descriptive and inferential statistical methods. Results: There was a significant association found between eating a diet that included meat and other animal products, the number of meals eaten in a day, the frequency of eating food from outside, the number of times going outside with relatives, and the number of visits to friends' homes, all of which were related to the birth weight of the baby (P 0.0001). The researchers came to the conclusion that the way of life of pregnant women has an effect on the amount of weight their babies are born weighing.

**Keywords:** Life style, pregnancy, birth weight, women, baby, relationship.

**INTRODUCTION:** Birth weight is one of the most dependable and essential health indicators that may be used to evaluate an infant's overall health, as well as the health of people and society as a whole [1]. Low birth weight (LBW) is a term that is used to describe infants that weigh less than 2500 g when they are born, as stated by the World Health Organization [2].

LBW infants have a higher risk of developing conditions such as cerebral palsy, mental retardation, neurological disabilities, respiratory diseases, sudden infant death syndrome, and complications related to being hospitalised in the intensive care unit [3-8]. Normal birth weight infants have a lower risk of developing these conditions. When compared to the costs associated with hospitalising and treating other infants, the cost of caring for these infants is six times higher [9].

There is a complex interplay of risk variables that contribute to LBW. According to the findings of one study, the factors that contribute to LBW can be broken down into four categories: foetal, placental, environmental, and maternal. There are a number of factors that contribute to LBW [10]. The maternal factors (demographic, socioeconomic, and medical) are the most influential of these reasons, and they affect birth weight through both biological and non-biological (medical and non-medical) mechanisms [11]. Other factors have less of an effect on birth weight.

LBW is still quite common and has even increased in some countries [12], despite the significant efforts that have been made over the past two decades to control the biological factors. As a result of these efforts, many health indicators, including child mortality, have decreased; however, LBW is still quite common. Because of this, it is imperative that attention be paid to non-biological aspects, particularly social factors and tactics connected to the



### Effectiveness of information booklet regarding cervical cancer on knowledge and attitude among women in rural community.

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#### ABSTRACT

Cervical cancer is a public health problem in developing countries like India, so much so that India alone accounts for one-quarter of the worldwide burden of cervical cancers. It is the one of the leading causes of cancer mortality. Study is performed to Improve knowledge and change in attitude regarding cervical cancer. Cervical cancer is usually asymptomatic in its pre invasive and early stages, although women may notice a watery or mucoid vaginal discharge. In the majority of cases, the disease is discovered by Pap test during routine examination. Cervical cancer is the third largest cause of cancer mortality in India **Aim of the study**-Aim of the study was to assess the effectiveness of information booklet regarding cervical cancer on knowledge and attitude among women in rural community. **Methodology**-The situation is more alarming in the rural areas where the majority of women are illiterate and ignorant about the hazards of cervical cancer thus by giving information booklet on cervical cancer along with modified Likert attitude scale and questionnaire administered by using one group pre test post test design increase in knowledge and change in attitude of women achieved. Cervical cancer is the second most common cancer in women worldwide. Persistent infection with oncogenic human papilloma virus (HPV), most frequently contracted through genital skin to skin contact/vaginal intercourse, is necessary for the development of cervical cancer and high-grade precursor lesions. **Result**- Data shows overall mean score of pre and post study based on modified attitude scale regarding cervical cancer with application of Wilcoxon Signed rank Test. Over all mean score of pre-test is 6.45 with standard deviation of 3.24. Over all mean score of post-test is 15.43 with standard deviation of 3.83. Wilcoxon Signed rank Test value is 7.631 which is statistically significant at 0.01% level of significance. The difference in mean score is 8.98 which show improvement in attitude score thus null hypothesis (H<sub>0</sub>) was stated. A comparison of pre test and post test attitude regarding cervical cancer before and after distribution of information booklet. Data about compare pretest and posttest knowledge score of women in that pretest mean score was 8.4250±6.0332 which was increased in post test mean knowledge score 19.45±3.82. As the calculated t-value is 21.44 and p-value= <0.00001, where p<0.05, Significant at 0.05 level of significance. **conclusion**- There is effectiveness of information booklet on knowledge and attitude regarding cervical cancer among women in rural community. Hence there will be

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significant difference between pre-test and post-test knowledge and attitude regarding cervical cancer among women in rural community.

**Key words-** Effectiveness , information booklet , cervical cancer , knowledge , attitude , women in rural community.

#### INTRODUCTION

Cervical cancer is the second most common cancer in women worldwide. Persistent infection with oncogenic human papillomavirus (HPV), most frequently contracted through genital skin to skin contact/vaginal intercourse, is necessary for the development of cervical cancer and high-grade precursor lesions. Virtually all cases of invasive cervical cancer harbor HPV DNA. Cervical cancer develops in a woman's cervix (the entrance to the womb from the vagina). It mainly affects sexually active women aged between 30 and 45. It occurs most often in women over age 30. Long-lasting infection with certain types of human papilloma virus (HPV) is the main cause of cervical cancer. At least half of sexually active people will have HPV at some point in their lives, but few women will get cervical cancer. When cervical cancer is found early, it is highly treatable and associated with long survival and good quality of life. Virtually all cases of invasive cervical cancer harbor HPV DNA. HPV is the most prevalent sexually transmitted virus disease; more than 100 distinct types of HPV have been identified and more than 40 types of HPVs can be sexually transmitted. HPV 18 is associated with 15% to 50% of invasive cervical cancer lesions. In 1842, Rigoni-Stern, the Italian physician noted that the cases of cervical cancer and genital warts in women were associated with sexual contacts. Children and adults ages 9 through 26 years. HPV vaccination is routinely recommended at age 11 or 12 years; vaccination can be started as early as age 9 years. In 2018, about 311,000 women died from cervical cancer worldwide, with more than 85% of these deaths occurring in less developed nations. An alarming fact is that more women die of cervical cancer in India than any other country.

#### NEED OF THE STUDY

In 2018 alone, close to 100,000 new cervical cancer cases were diagnosed in India and 60,000 women died from it. Today, it causes the second-highest cancer-related deaths in Indian women. The National Cancer Registry Programme Report 2020 was released on Tuesday by ICMR and National Centre for Disease Informatics and Research (NCDIR), Bengaluru. The report provides trends and information related to cancer incidence, mortality and treatment in India in 2020, based on data collected through a network of population and hospital-based cancer registries across the country. There are 28 Population Based Cancer Registries and 58 Hospital Based Cancer Registries that ICMR is running to generate cancer data. The cancer incidence (new cases) in men is estimated to be 679,421 in 2020 and 763,575 in 2025. Among women, it is estimated to be 712,758 in 2020 and 806,218 in 2025. Meena Armo et al (2019) conducted a cross-sectional questionnaire-based study, in the Department of Obstetrics and Gynecology at Government Medical College Rajnandgaon. A tertiary care hospital located in the south west Chattisgarh. A total of 506 women aged 21-65 years were included and assessed thus the results of the total 506 respondents, 15.41 % had heard of cervical cancer, while 8.1% about cervical cancer screening. Unfortunately, only 1.2% women were ever been screened by Pap test.

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**AIM OF THE STUDY** Aim of the study was to assess the effectiveness of information booklet regarding cervical cancer on knowledge and attitude among women in rural community.

**METHODS AND MATERIAL**

Research type-Descriptive Evaluatory study, Research Design used for this study and one group pre-test-post-test design. Sampling technique adopted for the selection of sample was Non-Probability Convenient sampling. In this study the sample consist of 80 women age group [30yr-55yr] in rural community. The questionnaire and attitude scale developed from previously published studies an in depth literature review. Tool used was questionnaire, lickert attitude scale and information booklet on cervical cancer. Pilot study conducted. Reliability value Alpha-0.9021 for questionnaire, Reliability value Alpha-0.8237 for attitude scale. Statistical analysis used in SPSS 20.0 software. Demographic characteristic, knowledge, attitude of cervical cancer was described using descriptive statistics including percentage, frequencies, mean median standard deviation.

**RESULT**

Present study of women showed that approximately had poor knowledge and attitude in pre-test after the administration of information booklet there was increased in knowledge and change attitude in post-test. Some of the variable showing association with the demographical variable. Data shows overall mean score of pre and post study based on modified attitude scale regarding cervical cancer with application of Wilcoxon Signed rank Test. Over all mean score of pre-test is 6.45 with standard deviation of 3.24. Over all mean score of post-test is 15.43 with standard deviation of 3.83. Wilcoxon Signed rank Test value is 7.631 which is statistically significant at 0.01% level of significance. The difference in mean score is 8.98 which show improvement in attitude score thus null hypothesis (H0) was stated. A comparison of pre test and post test attitude regarding cervical cancer before and after distribution of information booklet. Data about compare pretest and posttest knowledge score of women .in that pretest mean score was  $8.4250 \pm 6.0332$  which was increased in post test mean knowledge score  $19.45 \pm 3.82$ . As the calculated t-value is 21.44 and p-value =  $< 0.00001$ , where  $p < 0.05$ , Significant at 0.05 level of significance. There is effectiveness of information booklet on knowledge and attitude regarding cervical cancer among women in rural community. Hence there will be significant difference between pre-test and post-test knowledge and attitude regarding cervical cancer among women in rural community.

**Analysis of pre and post-test knowledge regarding cervical cancer before and after distribution of information booklet**

**Table.1 This table deals with analysis of pre test and post test knowledge of samples**

Know ledge	No. of Quest ions	Max. Score	Pre Test		Post Test		Wilcoxon Signed rank Test	P- Value	Sig. at 5% level
			Mean± SD	Media n	Mean±SD	Media n			

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Overall	30	30	8.43±6.03	7.03	19.45±3.83	20.0	7.728**	<0.001	Yes
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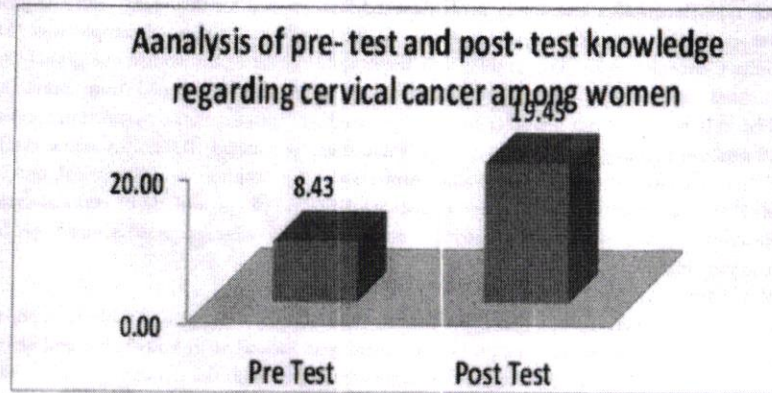


Fig. 1 This fig.deals with analysis of pre test and post test knowledge of samples

Table 2. Compare pre test and post test attitude of women regarding cervical cancer among women

Attitude regarding cervical cancer	N	Max. Mean Score	Mean	Stdev	Median	Wilcoxon signed rank test	P-Value	Significant at 5% level
Pre Test	80	100	55.86	9.5583	54.0	7.674**	<0.001	Yes
Post Test	80	100	80.13	10.7496	82.5			

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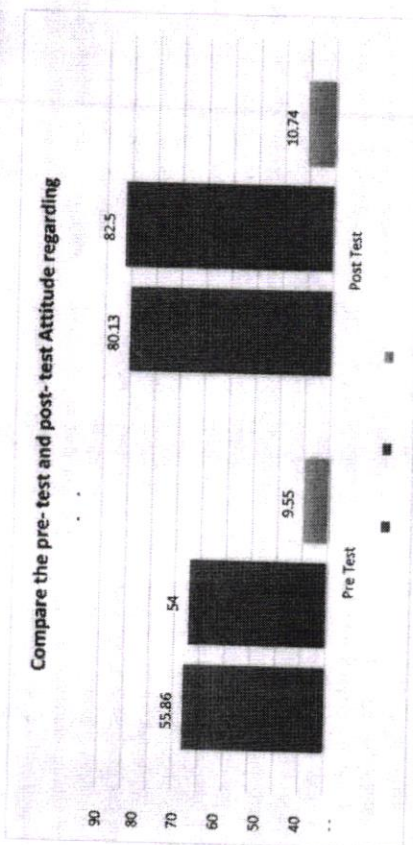


Fig 2. Compare pre test and post test attitude of women regarding cervical

#### DISCUSSION

Much of the literature highlighted a gap between knowledge of Cervical Cancer and actual uptake of screening among community women. While many women have heard of Cervical Cancer, fewer are aware of its symptoms, and far fewer have undergone any type of screening. Yet, many women expressed a positive attitude and willingness to undergo screening despite the low uptake. Similarly in this hospital-based, cross-sectional survey done by Narayan et al (2017), prevalence of screening for Cervical Cancer was extremely low at 5.4%; it is close with the 5-year screening prevalence estimated for developing countries by the WHO (5%). 23 In contrast in a cross-sectional study among women at a primary health center in Tamil Nadu, the majority of participants were aware of Cervical Cancer (75.42%) and many believed that they were at risk (50.58%). 13 However, only 31% had undergone a Pap smear, but 69.96% of those unscreened were willing to undergo it. Bansal et al 16 also found similar results in a study of women of reproductive age who presented to the outpatient department of a hospital in Bhopal where of the 400 respondents, 65.5% had heard of Cervical Cancer, only 9.5% had ever undergone a screening test, but 76.25% favored positively or showed positive attitude to the idea of screening. In Kerala, among 809 women interviewed, three-fourths were aware that Cervical Cancer can be detected through early screening, yet a mere 6.9% had actually undergone any sort of screening test. 15. 36 Similarly in a study by Dhodapkar SB et al, none of the participants knew about the VIA method of screening. Those participants who knew that Cervical Cancer can be detected by Pap smear, only 5 (4%) had ever undergone Pap smear examination. 32 In our review it was observed that 20.14% participants had knowledge of HPV vaccination and 35.68% practiced HPV vaccination. Similarly in a study by Narayana et al 23 (2017) participants believed that early screening and HPV vaccination could prevent Cervical Cancer; yet, the majority of the women (86.6%) had never been screened. In our review it was seen that only 8% females knew

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HPV vaccination as a risk factor for Cervical Cancer. Governments in the LMICs and health development agencies need to make available population-based HPV vaccinations alongside awareness campaigns about the role of HPV in the etiology of Cervical Cancer. Otherwise prevention practices related to cervical HPV infections including vaccinations, delay of sexual activity and multiple male sexual partners may receive limited attention from the community.

#### CONCLUSION

The conclusion drawn from the findings of the study are, present study showed that women had poor knowledge and attitude in pre-test. Present study of women showed that approximately had poor knowledge and attitude in pre-test after the administration of information booklet there was increased in knowledge and change attitude in post-test. Some of the variable showing association with the demographical variable. Data shows overall mean score of pre and post study based on modified attitude scale regarding cervical cancer with application of Wilcoxon Signed rank Test. Over all mean score of pre-test is 6.45 with standard deviation of 3.24. Over all mean score of post-test is 15.43 with standard deviation of 3.83. Wilcoxon Signed rank Test value is 7.631 which is statistically significant at 0.01% level of significance. The difference in mean score is 8.98 which show improvement in attitude score thus null hypothesis (H<sub>0</sub>) was stated. A comparison of pre test and post test attitude regarding cervical cancer before and after distribution of information booklet. Data about compare pretest and posttest knowledge score of women in that pretest mean score was 8.4250±6.0332 which was increased in post test mean knowledge score 19.45±3.82. As the calculated t-value is 21.44 and p-value = <0.00001, where p<0.05, Significant at 0.05 level of significance. There is effectiveness of information booklet on knowledge and attitude regarding cervical cancer among women in rural community. Hence there will be significant difference between pre-test and post-test knowledge and attitude regarding cervical cancer among women in rural community.

**Conflict of Interest :** The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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## A Descriptive Study to Assess the Stress and Coping Strategies Among Nurses Working in Covid-19 Ward in Selected Hospitals of Navi Mumbai

Prof. N. Manimegalai, M.Sc (N), Vice Principal, Swami Vivekananda College of Nursing, Rajalin Sharifa, Terna Nursing College, Prof. C. Subashini, Dharan Nursing College.

**Abstract:-** Background of the study: Working during the COVID-19 pandemic is a particular challenge for nurses because, while performing their daily routines, they are exposed to physical and social consequences of the SARS-CoV-2 virus, which is accompanied by intensified stress. In COVID-19 pandemic nurses contributed by doing extra shifts, working in adverse and unfavorable conditions which affected their physical and mental status and to cope with that what strategies do they use that has been assessed. Objective of the Study: To assess the stress, coping strategies among nurses working in COVID-19 wards and its association with demographic variables. Materials and method: A total of 60 nurses working in COVID-19 wards were selected by using non-probability convenient sampling technique. The tool used were modified work stress scale and modified brief cope scale. Results: Among selected staff nurses (n=60) 86.7% (n=52) nurses have mild stress, 13.3% (n=8) nurses have moderate stress and 0.0% nurses have severe stress and among selected staff nurses (n=60) 26.7% (n=16) nurses have low coping level, 61.7% (n=37) nurses have moderate coping level and 11.7% (n=7) nurses have high coping level. There is no statistical significant association between demographic variable and stress level of staff nurses but there is association between some of the demographic variables and coping level of nurses. Conclusion: Majority of nurses had mild stress and moderate coping. Some major demographic variables also had the association with coping level of nurses.

**Keywords:-** Stress, Coping Mechanism, Stress Scale and Modified Brief Cope Scale, Staff Nurse.

### I. INTRODUCTION

➤ "Set peace of mind as your highest goal, and organize your life around it."

Nursing has always been recognized as a stressful Profession, but this cannot be explained merely on the basis of increased workload. The COVID-19 pandemic has been a global challenge for healthcare workers, among whom nurses, undeniably, constitute the biggest professional group.

The corona virus disease 2019 (COVID-19) pandemic has resulted in >890,000 cases and >45,000 deaths worldwide, including 239,279 cases and 5,443

deaths in the United States (1,2).

By March 11, 2020, COVID-19 was declared a pandemic by the World Health Organization (WHO), with over 120,000 cases and 4300 deaths reported around the world.<sup>2</sup> WHO reports that as of October 22, 2020, there are over 40 million confirmed cases worldwide, with over 1 million deaths.

Data from 149,760 laboratory-confirmed COVID-19 cases in the United States occurring during February 12-April 2, 2020 were analyzed. Among 149,082 (99.6%) reported cases for which age was known, 2,572 (1.7%) were among children aged <18 years. Data were available for a small proportion of patients on many important variables, including symptoms (9.4%), underlying conditions (13%), and hospitalization status (33%).

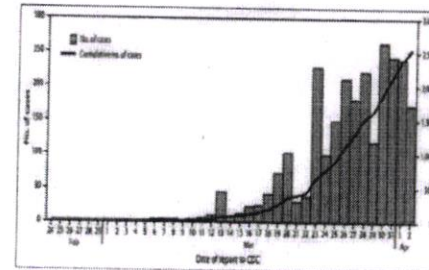


Fig 1: Cumulative Number of Cases in February To April 2020

A scoping review seeking to estimate a global number of healthcare workers (HCW) infected or deceased due to the pandemic found 152,888 infections and 1413 deaths reported. WHO cites additional hazards for HCWs during this time such as higher workload, psychological distress, fatigue, occupational burnout, and physical and psychological violence.

Working in pandemic conditions is a significant challenge for nurses because, while performing their daily routines, they are particularly exposed to the physical and social consequences of the SARS-CoV-2 virus, which is accompanied by intensified everyday stress it is difficult for

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nurses to find themselves in this new reality, taking into account the speed with which the disease is spreading, an insufficient time to prepare for a record number of seriously ill patients, the high mortality rate, everyday work in personal protective equipment, unpredictability of events, loss of control, sense of helplessness, and the fear accompanying everyday work routines. These are just some of the reasons why nurses' work is extremely vulnerable to stress and its effects during the COVID-19 pandemic.

COVID-19 has not only had an impact on staff nurse emotions, but their coping strategies too have undergone a change. Coping is defined as the thoughts and actions that individuals use to deal with stressful events. Research has identified two general coping strategies: one is problem-focused coping where the purpose is to solve the problem or take action to change the status quo; and the other is emotion-focused coping, which aims to reduce the emotional distress associated with stressful situations. Research on identifying differences in nurses' work in the face of such enormous stress, such as the COVID-19 pandemic, seems to be of vital importance in order to develop diverse and highly effective intervention strategies.

According to Indus Scriolla press, published on 12 May 2020 found that, among 1,257 healthcare workers working with Covid-19 patients in China, 71.5% reported stress and 60% of them had less coping strategies over covid 19 pandemic.

ALL nurses were frustrate irritable due extra shifts work load and with PPE kit, travelling issues, risk of infection to family, dehydration, payment issues etc this all issues they were facing during their duties. Based on this, the purpose of this study was to explore the current status and relationship of stress and coping strategies of nurses at all levels of hospital.

Research on identifying differences in nurses' work in the face of such enormous stress, such as the COVID-19 pandemic, seems to be of vital importance in order to develop diverse and highly effective intervention strategies.

**> Need For Study**

The first case of Corona virus disease 2019 in India was reported in the state of Kerala on January 30, 2020. Nurses as front line workers encountered greater challenges in caring patients with COVID 19 and lock down restrictions.

Major stress sources included working in an isolated environment, changing one's way of life, concerns about personal protective equipment, having inadequate nurses in the unit, fear of being infected, physical and emotional exhaustion. The fear of being infected, fear of infecting family members, and the discomfort caused by protective equipment were the key sources of stress among frontline healthcare workers caring for COVID-19 patients.

Survey done in Wuhan reveals that, among 994 medical and nursing staff, 36.9% had sub-threshold mental health disturbances, 34.4% had mild disturbances, 22.4% had

moderate disturbances, and 6.2% had severe disturbance in the immediate aftermath of the viral epidemic.<sup>3</sup>

As a member of the COVID team nurses, the investigator noticed that nursing staff were under a lot of stress due to their work load, COVID procedures, and the fear of being infected and spreading them to their family members. As a result, this cross-sectional descriptive research was conducted with the following objectives to assess the psychological impact of the COVID 19 pandemic among nursing personnel involved in caring for COVID 19 patients.

**> Objectives**

1. To determine the level of stress and coping strategies among nurses working in COVID-19 ward in selected hospital of Navi Mumbai.
2. To find an association between selected demographic variables with stress and coping strategies among nurses working in COVID-19 ward in selected hospital of Navi Mumbai.

**II. MATERIALS AND METHODS**

**> Design and sampling**

A descriptive study design was used in this study. Staff nurses caring for COVID 19 patients in the Terna specialty hospital research center in south India with experience of caring for patients with COVID 19 for at least one week were included in the study. There were 60 nurses in all, selected by Non-Probability convenient sampling technique from all three shifts. The participants gave their informed consent. They were given a self-administered questionnaire and rating scale to complete.

**III. DATA COLLECTION INSTRUMENT**

The researcher adopted a practical approach for the development of tool prior to preparation of tool. This Study the Tool Consists of.

**Section A:** Demographic data which includes Age in years, Gender, Religion, Type of families, Place of residence, Mode of travel, Marital status, Year experience, Income, Distance of workplace, Supporting system, Training program. Totally it consists of 12 items.

**Section B:** Modified stress scale to assess the level of stress which consist of 1-20 items and scoring scale up to 1- 5 with division of scores based on severity of stress. The participants have responded to the statements as per the severity of the stress factor (0=No stress; 0-37=Mild; 38-59=Moderate; 60-100=Severe). The content validity index score of this section was 0.98.

**Section C:** Modified brief cope scale to assess the level of coping strategies which consist of 1-20 items and scoring scale up to 5 with division of scores based on coping to stress. (Low level coping: 1-57, Moderate level coping: 58-79, High level coping: 80-100). The content validity index score of this section was 0.96.

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**Data Collection Procedure:**

A formal written permission was secured from the head of the institution from Terna speciality hospital and research center, Navi Mumbai. The data was possessed from February 2022, from staff Nurses who fulfilled sample inclusion criteria. Before conducting the study, the researcher visited the selected hospital prior to the data gathering process and obtained permission from the authorities to conduct the study. A written informed consent obtained from them after detailed description and ensuring confidentiality. The questionnaires were administered to the group for test; instructions given, clarification was provided whenever they had doubt. They were given one complete hour to complete the questionnaire. The score was calculated and considered as test score. The score obtained was calculated and considered as test score. This process continued until the researcher obtained

required sample size. Data collection process was completed. All the participants cooperated well in the test. The data collection process was terminated by thanking the participants and supervisors for their cooperation. Descriptive and inferential statistics was done to compute the results. The descriptive data included frequencies and means of perceived stressor scale, chi-square was used for association.

**Data analysis:**

The data was analyzed using SPSS 23.0 statistics. Descriptive statistics were used to analyze the demographic distribution, stress, and coping factors using frequency, proportions (percent), mean, and standard deviations. To see whether there was an association between stress and coping impact with demographic variables, the Chi square test was used.

**RESULTS**

**Part A: Demographic Characteristics of the staff Nurses:**

**Table 1: Distribution of subjects based on demographic variables NO: 60**

S.no	Demographic variables	variables	percentage
1	Age group (yrs)	20 – 34	66.7
		35 – 44	26.7
		45 – 54	6.7
2	Gender	Female	85.0
		Male	15.0
3	Education	Diploma	51.7
		UG	33.3
		PG	15.0
4	Marital status	Others	0.0
		Married	42
5	Year of experience	Unmarried	58
		1 month – 1 yr	33.3
		1 yr - 2 yrs	21.7
		2yrs – 4yrs	45.0
6	Income (Rs)	10000 – 20000	46.7
		21000 – 25000	36.7
		30000 and above	16.7
7	Types of Family	Joint	18.3
		Nuclear	81.7
8	Types of Residence	Home	70.0
		Hostel	30.0
		By walk	50.0
9	Mode of Travel	Train	48.3
		Institutional Vehicle	1.7
		Other	0.0
		1km – 2kms	43.3
10	Distance of work place	2.1kms – 4kms	16.7
		>4kms	40.0
		Friend	45.0
11	Supporting system during stress	Husband	26.7
		Relatives	28.3
		Yoga	10.0
12	Training program for stress reduction	Meditation	15.0
		Others	75.0

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The data about demographic variables of staff nurses regarding age group depicts that 66.7% nurses belongs to age group of 20-34 years, 85% staff nurses are belongs to female, 51.7% staff nurses has done diploma, 58.3% of nurses were married. 45% of nurses are experienced for 2-4 years. 46.7% (28) of nurse monthly income falls in the range of 10000-20000Rs, 81.7% staff nurses belongs to nuclear family. 70% staff nurses reside in their home. Half of the staff nurses (50%) come to hospital by walking. Distance of workplace for 43.3% nurses is 1-2 KMs, 45% staff nurses have their friend. As a training program for stress reduction 75% nurses uses other resources.

A qualitative study done by Galehdar Nasrin et al (2020) also supports this finding that nursing staff expressed significant inconvenience in using the full attire of PPE recommended to protect them from COVID 19 and fear and anxiety of transmitting infection from the work area to their family environment always burdened them. They expressed concern about having to wear the full gown with other protective gears for the whole shift which placed difficulties in meeting their basic needs such as eating, drinking, and even going to rest room.

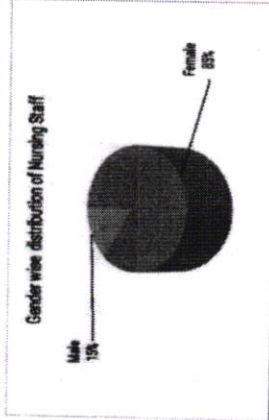


Fig. 4: Frequency distribution of gender of Nursing Staff

Table- 2: Bar diagram showing Categorical stress level among nurses

Level	Stress level			Total
	Mild %	Moderate %	Severe %	
Stress Level	52	86.7	8	13.3
	0	0	0	0.0
	0	0	0	0.0

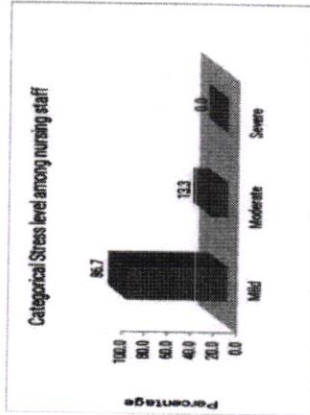


Fig 5: Frequency distribution of stress level among nursing staff

Reveals that 86.7% (52) nurses have mild stress, 13.3% (8) nurses have moderate stress and 0% nurses have severe stress.

Table-3: Bar diagram showing Categorical coping level among nursing staff.

Coping Level	Coping Level			Total
	Low %	Moderate %	High %	
Coping Level	16	26.7	37	61.7
	7	11.7	11.7	60

Bar diagram showing Categorical coping level among nursing staff shows that 26.7% (16) have low coping level, 61.7% (37) have moderate coping level and 11.7% (7) have high coping level.

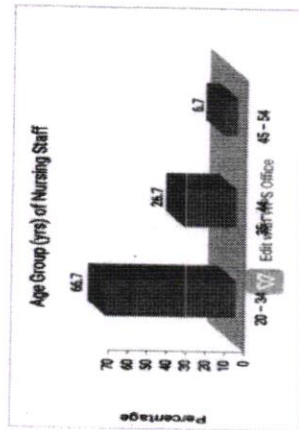


Fig. 2 Frequency distribution of Age group of Nursing Staff

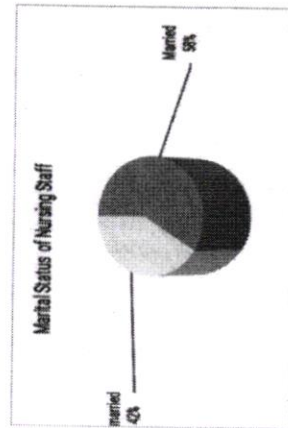


Fig. 3: Frequency distribution of marital status of Nursing Staff

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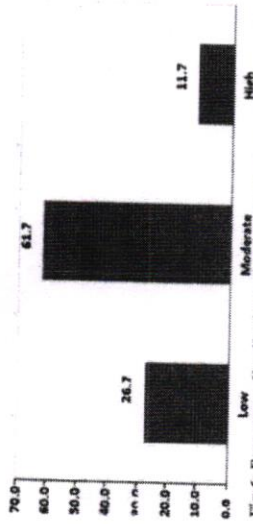


Fig 6: Frequency distribution of coping level among nursing staff

Table 4: Association of the level of stress among nurses working in covid-19 ward with demographic variables

Demographic Variables	Stress Level			Total	Chi square test	P-Value	Significant at 5% level
	Mild (0-59)	Moderate (60-89)	Severe (90-100)				
<b>Age group (yrs)</b>							
20-34	33	7	0	40	1.911	0.385	Non significant
35-44	15	1	0	16			
45-54	4	0	0	4			
<b>Gender</b>							
Female	45	6	0	51	0.724	0.395	Non significant
Male	7	2	0	9			
<b>Education</b>							
Diploma	26	5	0	31	1.642	0.440	Non significant
UG	17	3	0	20			
PG	9	0	0	9			
Others	0	0	0	0			
<b>Marital Status</b>							
Married	30	5	0	35	0.066	0.797	Non significant
Unmarried	22	3	0	25			
<b>Year of experience</b>							
1 month - 1 yr	18	2	0	20	0.291	0.865	Non significant
1yr - 2 yrs	11	2	0	13			
2yrs - 4yrs	23	4	0	27			
<b>Income (Rs)</b>							
10000 - 20000	24	4	0	28	2.008	0.366	Non significant
21000 - 25000	18	4	0	22			
30000 and above	10	0	0	10			
<b>Types of Family</b>							
Joint Nuclear	10	1	0	11	0.210	0.647	Non significant
	42	7	0	49			
<b>Types of Residence</b>							
Home	38	4	0	42	1.758	0.185	Non significant
Hostel	14	4	0	18			
<b>Mode of Travel</b>							
By walk	26	4	0	30	0.159	0.924	Non significant
Train	25	4	0	29			
Institutional Vehicle	1	0	0	1			
Other	0	0	0	0			
<b>Distance of work place</b>							
1km - 2kms	23	3	0	26	0.472	0.790	Non

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2. I kms - 4kms >4kms	Coping Level			Total	Chi squares	P- Value	Significant at 5% level
	Low (0-57)	Moderate (58 -- 79)	High (80-100)				
	8	2	0	10			significant
	21	3	0	24			
<b>Supporting system during stress</b>							
Friend	22	5	0	27		3.650	0.161
Husband	13	3	0	16			Non significant
Relatives	17	0	0	17			
<b>Training program for stress reduction</b>							
Yoga	4	2	0	6		3.462	0.177
Meditation	9	0	0	9			Non significant

\*Statistically Significant at 5% level i.e., P<0.05.

Association of stress level among nurses providing care to the COVID-19 patients in COVID ward with selected demographic variable, based on chi square test the calculated value for association which is statistically insignificant at 5% level i.e. P<0.05. hence we can conclude that there is no association between stress level and age group, Gender, Education, Marital Status, Year of experience, Income, Type of family, Type of Residence, Mode of Travel, Residence, Distance of work place, Supporting system during stress, Training program for stress reduction.

Table 5: Association of the level of coping among nurses working in covid-19 ward with demographic variables

Demographic Variables	Coping Level			Total	Chi squares	P- Value	Significant at 5% level
	Low (0-57)	Moderate (58 -- 79)	High (80-100)				
<b>Age group (yrs)</b>							
20 - 34	12	26	2	40	17.482*	0.002	Significance
35 - 44	4	10	2	16			
45 - 54	0	1	2	4			
<b>Gender</b>							
Female	13	31	7	51	1.455	0.483	Non Significance
Male	3	6	0	9			
<b>Education</b>							
Diploma	12	18	1	31	9.574*	0.048	Non Significance
UG	3	14	3	20			
PG	1	5	3	9			
<b>Marital Status</b>							
Married	12	18	5	35	3.750	0.153	Non Significance
Unmarried	4	19	2	25			
<b>Year of experience</b>							
1 month - 1 yr	6	14	0	20	5.134	0.274	Non Significance
1yr - 2 yrs	2	9	2	13			
2yrs - 4yrs	8	14	5	27			
<b>Income (Rs)</b>							
10000 - 20000	7	19	2	28	4.520	0.340	Non Significance
21000 - 29000	6	14	2	22			
30000 and above	3	4	3	10			
<b>Types of Family</b>							
Joint	6	5	0	11	6.071*	0.048	Significance
Nuclear	10	32	7	49			
<b>Types of Residence</b>							
Home	13	23	6	42	2.870	0.238	Non Significance
Hostel	3	14	1	18			
<b>Mode of Travel</b>							
By walk	11	18	1	30	6.538	0.163	Non Significance
Train	5	18	6	29			
Institutional Vehicle	0	1	0	1			
Other	0	0	0	0			
<b>Distance of work place</b>							

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1km – 2kms	7	18	1	26	3.647	0.456	Non Significance
2.1kms – 4kms	3	6	1	10			
>4kms	6	13	5	24			
<b>Supporting system during stress</b>							
Friend	3	21	3	27	11.767*	0.019	Significance
Husband	8	8	0	16			
Relatives	5	8	4	17			

\*Statistically Significant at 5% level i.e.,  $P < 0.05$ .

Association of coping level among nurses providing care to the COVID-19 in COVID ward with selected demographic variable, based on chi square test the calculated value for association which is statistically significant at 5% level i.e.  $P < 0.05$ . Hence we can conclude that there is association between coping level and age group, Type of family, supporting system during stress.

Association of coping level among nurses providing care to the COVID-19 patients in COVID ward with selected variable, based on chi square test the calculated value for association which is statistically insignificant at 5% level i.e.  $P < 0.05$ . hence we can conclude that there is no association between coping level and Gender, Education, Marital Status, Year of experience, Income, Type of family, Type of Residence, Mode of Travel, Residence, Distance of work place, Training program for stress reduction.

## V. DISCUSSION

### > Findings in relation to demographic data

The data about demographic variables of staff nurses regarding age group depicts 66.7% nurses belongs to age group of 20-34 years, In gender wise distribution 85% staff nurses are female, 51.7% staff nurses has done diploma, 58.3% nurses among selected sample is married, 33.3% nurses have experience of 1 year, The monthly income of 46.7% (28) nurse falls in the range of 10000-20000Rs. 81.7% staff nurses have nuclear family, 70% staff nurses resides in their home, Half of the staff nurses (50%) come to hospital by walking, Distance of workplace for 43.3% nurses is 1-2 KMs. This findings were highlighted with the study conducted by Clarke and Ruffin CL 2019, who found the 85% of staff Nurse are female and 58% are married.

### > Findings in relation to the level of stress and coping among nurses providing care to COVID-19 patients in COVID-19 ward

In present study it was found that 86.7% (52) nurses have Moderate stress and 61.7% (37) have moderate coping level. This was supported by the study done by Sheu et al on stress levels and coping behavior of which revealed that the level of stress in staff nurses was moderate stress level. The above findings of the study are compatible with the findings of Carwel et al. they assessed the stress levels and coping behavior of staff nurses and found the most common coping behavior of the nurses was to stay optimistic, followed by transference and problem solving.

### > Findings in relation to the Association of the level of stress and coping among nurses working in covid-19 ward with demographic variables

In present study it was found that there is no association between stress level and age group, Gender, Education, Marital Status, Year of experience, Income, Type of family, Type of family, Type of Residence, Mode of Travel, Residence, Distance of work place, Supporting system during stress, Training program for stress reduction. And also found there is association between coping level and age group, Type of family, supporting system during stress. The findings were persistent with the report of Rocha - Singh, I. A. (2019) which denote that there is association between stress and coping level of staff nurses with selected demographic variable of age and type of family.

## VI. CONCLUSION

COVID-19 pandemic has been a stressful situation for the nursing profession, Nurses managed to maintain their mental and emotional health. In this study, researchers assessed the stress level among nurses in which 86.7% (n=52) nurses have mild stress, 13.3% (n=8) have moderate stress and none of them have severe stress. Also assessed the coping level among selected staff nurses (n=60) in which 26.7% (16) nurses have low coping level, 61.7% (37) nurses have moderate coping level and 11.7% (7) nurses have high coping level. Among the demographic variables there is significant association between age group and coping level, having Chi square test value 17.482, P value =0.002. Also between education and coping level, having Chi square test value 9.574, P value =0.048, types of family and coping level, Chi square test value 6.071, P value =0.048. And between support system during stress and coping level, Chi square test value 11.767, P value=0.019.

## RECOMMENDATION ON THE STUDY

On the basis of the present study the following recommendations can be made:-

1. A comparative study can be done on the stress among nurses working in COVID-19 ward and general ward.
2. A study can be done to assess the effectiveness of a particular coping strategy on stress among nurses.
3. An experimental study can be done to assess the newer coping strategies on nurses working in COVID-19 ward.

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4. A similar study can be replicated in a setting of bigger sample size to generalize the result.

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