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A CROSS SECTIONAL STUDY OF IFA CONSUMPTION AMONG MOTHERS 18-40 YEARS IN PONDICHERRY

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ABSTRACT

Background: Anemia in pregnancy is a major public health problem in India and the inadequate coverage of mothers by full course iron-folate (IFA) consumption in pregnancy is an area of concern. An idea of the range of coverage and factors influencing compliance would help in evaluating the program. **Methods:** Cross sectional community based study by house to house survey, using a questionnaire administered by trained interviewers was done in randomly allocated streets of 4 different areas of Pondicherry. **Results**: 100% of mothers (218) had received IFA tablets. Side effects of vomiting and bad taste were the main reasons for non-compliance. An awareness of the merits of consumption seemed to have a positive impact on the consumption pattern. Health worker visits were there only in 50.4 % of the mothers. **Conclusion**: More efforts to enhance health worker visits and better education of mothers about the merits of IFA consumption may help improve the compliance of IFA consumption.

KEYWORDS: IFA, Mothers, South India.

INTRODUCTION

Anemia as a cause of maternal mortality leads the field among the indirect causes of maternal mortality in India. Anemia caused by a deficiency of iron is a major problem in public health, it being responsible for as much as 60% of the anemia prevalence among pregnant women world over.[1] In India the condition afflicts 59% of the pregnant women.[2] Though the ministry of health and family welfare has taken positive initiatives in the direction towards anemia control by launching and sustaining a robust program for more than 40 years now,

there remains a gap in the process of the iron-folate supplements finally landing up into the gastrointestinal systems of the pregnant mothers for various reasons. This is reflected in the report of National Family Health Survey (NFHS)-3, showing a meager 23% of women consuming the iron folate supplements for at least 90 days.[2]

With an objective to find out, 1. Whether the mothers received IFA tablets during their pregnancy and if yes, how many tablets. 2. whether mothers consumed the complete course of IFA during their pregnancy and for those who did not, the reasons thereof, and, to health educate the mothers regarding the benefits and need for IFA consumption, the present study was undertaken covering both rural and urban areas of Pondicherry, south India.

METHODOLOGY

Cross sectional community based study by house to house survey, using a questionnaire administered by trained interviewers was done in randomly allocated streets of 4 different areas of Pondicherry, Katterikuppam,Kumarapalayam Moolakulam and Pllaichavady which are our field practice areas.. The participants in this study were all the mothers who had delivered a child within last 5 years. Primi's who were currently pregnant, were excluded from study.

RESULTS

Out of 218 mothers 100 mothers(45.8%) belonged to 18-25 years age group and 118 mothers(54.1%)belonged to 25-40 years of age group. Maximum number of mothers studied up to high school or above 170 (77.9%) and the remaining 48(22%) studied below high school level.

104(47.7%) mothers have one child, 98(44.9%) mothers have 2 children & 16(7.3%) mothers have 3 or more than 3 children. All the 218 mothers registered their pregnancy of which 82 mothers (37.6%) has registered in GH, 70 mothers (32.1%) has registered in PHC, 58 mothers (26.6%) has registered in Private hospitals and 8 mothers (3.6%) has registered in JIPMER.

110 mothers (50.4%) were visited by Health worker, 108 mothers (49.5%) were Not visited by Health worker. Among those visited by health worker, 95% (104) of mothers had ideal number of visits by a health worker (3 0r >3 visits), while 5% (6) of mothers had only one visit. Among the 110 mothers who were visited by health workers 39% (43) belong to urban area, and 61% (67)

belong to rural area and out of 108 mothers who were not visited by health worker, 32.4% (35) belong to urban area, and 68% (73) belong to rural area. The statistical test for difference in proportions revealed that there was no significant association between; belonging to urban or rural area and the occurrence of a health worker visit.

100% of mothers (218) had received IFA tablets. 196 mothers (89.9%) were issued 100 tablets or more, 22 mothers (10%) were issued 60 – 90 tablets and none received <60 tablets. 64 mothers (29.3%) received tablets from Health worker, 50 mothers (22.9%) received tablets from PHC, 50 mothers (22.9%) received tablets from Private hospital and 54 mothers(24.7%) received tablets from GH. Maximum mothers received IFA tablets in 4th month(138, 63.3%) . And minimum in 3rd month(3, 1.3%). 50% (109) mothers consumed 100 tablets or more and 1.3% (3) mothers consumed <30 tablets. [Table I]

Table I: Number of IFA tablets received by the mothers.

No. Of tablets	<30	30-60	61-99	100 or more
No. Of mother	3	49	57	109
%	1.3%	22.4%	26.1%	50%

Among the reasons for less consumption of the IFA tablets maximum number of pregnant woman complained of vomiting alone 53 mothers, (48.62%). In combination with other side effects vomiting was complained of by 70 (66%) of mothers.

Table II: Reason for less consumption

Didn't like to take tablets	8 (7.3%)
Vomiting	53 (48.6%)
Abdominal colic	3 (2.7%)
Bad taste in mouth	15 (13.7%)
Black tarry stools, Indigestion, Diarrhoea, Giddiness	5 (4.5%)

22.4% of the mothers who did not consume the complete course of IFA had a combination of more than one reason from among the above mentioned problems for their non compliance of the IFA consumption. [Table II]. 100% of pregnant mother (218) visited hospital for check up. Maximum number of mothers had 9 visits (67, 30.7%) while 4%(9 mothers) had only 4 visit.

78.89%(172) mothers knew the merits of IFA tablets consumption and the rest of the mothers 21.7%(46) do not know. Out of 172 mothers who know the merits, 22% believe that Anemia is healed by IFA, and 2.2%(5) believes that baby's birth weight will be good and 2.2% (5)

mothers believes post delivery complication will be reduced. Mothers who know more than 1 advantage 39.2%. 0.9% (2) mothers had misconception that, consumption of IFA tablets causes congenital defect like CTEV and deafness.

Maximum mothers (149) 68.3% delivered in government setup and remaining (89) 40.8% mothers delivered in private hospital.160 mothers (73.3%) did not receive incentive from the government and only 58, (26.6%) received incentive.

Out of 58 mothers, maximum number of mothers 15(25.8%) spent the money to buy dress for baby, and minimum of 1(1.7%) spent the money to purchase dress for mother, food for baby, drugs for mother.

Out of 50 mothers who went to private hospital for check up, 26 mothers (52%) took 100 or more tablets and no one consumed <30 tablets , on the contrary ,out of the 168 mothers who went to government hospital , 83(49.4%) took 100 tablets or more and 3 (1.7%) took less than 30 tablets. There seems to be no significant difference in the pattern of consumption based on the hospital being private or government. [Table III]

Table III: Number of IFA tablets consumed in mothers visiting private and government hospitals.

Tablets consumed	Private hospital	Government hospital
<30		3(1.7%)
30-60	9(18%)	40(23.8%)
61-99	15(30%)	42(25%)
100 or more	26(52%)	83(49.4%)
	50	168

P < 0.05

Table IV: IFA consumption and educational status of mother.

IFA consumption	Illiterate	primary	Middle school	High school	Secondary	Graduation OR Postgraduation
<30 Tablets	1, 16.6%	1, 16.6%	1, 2.7%			
30-60	0	2, 33.3%	5, 13.8%	25, 40.3%	13, 24.5%	4, 7.27%
61-99	1, 16.6%	2, 33.3%	10, 27.7%	11, 17.7%	20, 37.7%	13, 23.63%%
100 or more	4, 66.6%	1, 16.6%	20, 55.5%	26, 41.9%	20, 37.7%	38, 69.09%%
Total	6, 100%	6, 100%	36, 100%	62 , 100%	53, 100%	55, 100%

The educational status of the mothers seems to have a positive impact on the number of tablets consumed with no mother educated above middle school consuming less than 30

tablets and 92.7% of mothers with graduation and above consuming more than 60 tablets. [Table IV]

Out of 50 mothers who received IFA tablets from private hospital, 30% (15) mothers had side effects and 70% (35) had no side effects and out of 168 mothers who received IFA tablets from government hospital, (77)45.8% had side effects and (91)54.1% had no side effects. This difference in occurring of side effects was statistically significant with the incidence being significantly higher among mothers receiving IFA from government hospitals ($p < 0.01$). Also comparing for presence and absence of side effects based on whether the mother is aware or not, of the merits of the IFA tablets we found that among the mothers who knew the merits, the incidence of side effects of 34.3% (59 out of 172) was significantly lesser than the incidence among mothers who were not aware of the merits 71.7% (33 out of 46) with a p value of less than 0.001 [Table V]

Further analysis of the difference in knowledge of merits of IFA consumption, between mothers visiting government and private set ups we found that among the mothers visiting a private set up the awareness of merits was higher (86%) as compared to mothers visiting a government set up (76.7%), but this difference was not statistically significant. [Table 5]

Table V: Presence and absence of side effects in relation to the set up visited and the awareness of merits,

	Private		**Government**		
Side effects Present	15		77		**92**
	Merits known	Merits unknown	Merits known	Merits unknown	
	12	3	47	30	
Side effects Absent	35		91		**126**
	Merits known	Merits unknown	Merits known	Merits unknown	
	31	4	82	9	
	43	**7**	**129**	**39**	*218*

DISCUSSION AND CONCLUSION

All the mothers in our study had their pregnancy registered, had hospital deliveries and received iron folate tablets during the course of their pregnancy. The consumption rate of a full course of 100 tablets was 50 % which is higher when compared to existing data of (22.4%) according to DLHS III (District Level Household Survey. The reasons for non

compliance, was mainly attributed to vomiting and bad taste in the mouth (62.3%). Mothers who went to private hospitals for checkup have almost similar compliance to the ones who went only to government. Mothers who did their graduation and post graduation had more compliance for consuming the pills. The mothers who visited private set up had more knowledge about merits of IFA consumption as well as reported fewer side effects as compared to the mothers visiting a government set up. This may imply that more educated mothers visiting private set ups are less likely to have side effects with IFA consumption. The burden of having to deal with a much larger patient load in government hospitals may be contributing to less time being spent to address the health education to mothers regarding merits of IFA consumption. Both in urban and rural areas, the health worker visits are below standards. The lack in health worker involvement with giving information about IFA and giving sufficient motivation is borne out in past studies also.[4,5,6]

Thus we might safely say that the consumption of a complete course of IFA can be enhanced further by more efforts directed towards comprehensively educating the mothers regarding the health benefits of IFA consumption as well as allaying their fears in case of side effects by a follow up mechanism to address these problems as and when they arise. This can be done by looking into the constraints faced by the health workers and motivating them to do more by having a proper number of meaningful visits to the antenatal mother.

REFERENCES

1. De Benoist B, McLean E, Egli I, Cogswell M (Eds.).Worldwide Prevalence of Anaemia 1993–2005: WHO Global Database on Anemia. Available at: http://whqlibdoc.who.int/publications/2008/9789241596657_eng.pdf
2. Agarwal KN, Agarwal DK, Sharma A. Anemia in pregnancy interstate differences. Nutrition Foundation of India; Scientific Report 16, 2005. Available at: http://nutritionfoundationofindia.res.in/pdfs/Scientific-report-16.pdf
3. Consumption of IFA tablet, State fact sheet District Level Household and Facility Survey 2007-08. Ministry of Health and Family Welfare Government of India. [Last accessed on 2012 Sep 01]. Available from:http://www.rchiips.com . Available from:http://www.rchiips.org/pdf/rch3/state/India.pdf .
4. Kumar S et al, Iron-Folic Acid Intake Among Pregnant Women in Anumanthai PHC of Villupuram, Tamil Nadu, Indian Journal of Clinical Practice, February 2014; 24(9): 875-877.

5. Kalaivani K. Prevalence & consequences of anaemia in pregnancy. Indian J Med Res, 2009; 130(5): 627-33.
6. Agarwal KN, Agarwal DK, Sharma A, Sharma K, Prasad K, Kalita MC, et al. Prevalence of anaemia in pregnant& lactating women in India. Indian J Med Res, 2006; 124(2): 173-84.