

Socio-demographic Variables Affecting Services Utilization Under Integrated Child Development Scheme (ICDS) in Bikaner - A Cross-Sectional study

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Introduction The Integrated Childhood Development Services (ICDS) scheme is India's foremost program imparting comprehensive and cost-effective services related to women and child beneficiaries. Still the level of coverage of the services is matter of concern in present day scenario. To find utilization of ICDS services and relation of various socio-demographic variables with utilization of services the study was proposed. **Objective:** To assess utilization and various socio-demographic variables affecting utilization of Integrated Child Development Scheme (ICDS) services. **Methods** A cross-sectional study was done in 1548 beneficiaries residing in service delivery area of Rural and Urban Health Training Centers of Bikaner, to assess effect of various socio-demographic variables on utilization of services provided under ICDS. The information was collected and entered in MS excel. **Results** This study revealed that 815(52.65%) beneficiaries utilized at least one service provided under ICDS. 50.69% urban study population and 54.71% of rural study population utilized the services. Among the significant variables affecting utilization of ICDS were religion, caste, nature of family, socioeconomic status and occupation. **Conclusion** This study revealed that utilization of services among rural and urban beneficiaries was almost similar, nearly half of the beneficiaries utilized the services. The role of various socio-demographic variables was significant in level of utilization of services in a particular group. IEC and BCC activities should be done in community to increase utilization of ICDS services by beneficiaries residing under service area of an Anganwadi.

Keywords: ICDS services utilization, socio-demographic variables, Anganwadi

Introduction

Integrated Child Development Services (ICDS) is an important universal scheme, implemented on 2nd October 1975, under Department of Social Welfare. ICDS lay foundation for the development of nation's human resource by providing an integrated package of early childhood services, to improve the nutrition and health status of children 0-6 years, pregnant and lactating mothers and adolescent girls of 11-18 years. The beneficiaries under ICDS are- Children less than 6 years, Adolescent girls 11-18 years, Pregnant women, Lactating mothers & women 15-45 years.

By 2019, 7075 ICDS projects and 13,72,872 Anganwadi centres were operational across 28 States & 9 Union Territories.¹ In Rajasthan there are 304 projects having 61,974 Anganwadi center operational, with registration of 17,09,488 children below three years of age, 9,57,669 children three to six years of age, 1,73,591 adolescent girls, 8,75,613 pregnant women and lactating mothers. In Bikaner there are seven rural and one urban block having 1327 Anganwadi centre out of them 1298 are operational.²

In Family Health Survey (2015-16) 39.1% of children under age of five years were found stunted (height-for-age), 23% of children under age of five years were wasted (weight-for-height) and of these 8.6% were severely wasted. 36.7% of children under age of five years were underweight (weight-for-age).³

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Despite several achievements that the ICDS scheme has witnessed during its four decades of implementation, there is a continued need of achieving the targeted goals in the field of mother and child nutrition so to assess the level of utilization and effect of various socio-demographic variables on utilization of services provided under ICDS study was proposed.

Materials and Methods

Study area: service delivery area of Rural and Urban Health Training Centers under Sardar Patel Medical College Bikaner. **Study population:** Beneficiaries of ICDS services. **Study design:** A cross-sectional study. **Study period:** January 2019 to August 2019. **Study sample:** Taking utilization of services of Anganwadi P as 77⁴ with, absolute precision 5% at confidence level 95%, the minimum sample size estimated as⁵ $n = Z^2_{(1-\alpha/2)} (p \times q) / d^2$ where $Z^2_{(1-\alpha/2)} \cong 4$ $p=0.77$, q is $1-p$, $d^2=(0.05)^2$ is precision, $n=283$

Inclusion criteria: Children 6 months to 6years, Adolescent girls (11-18yrs) Pregnant women, Lactating mothers delivered in last one year, Other women 15-45 years **Exclusion criteria:** Beneficiaries not residing in field practice area of Rural and Urban Health Training Centre, Bikaner, Children below 6 months, Lactating mother delivered more than one year ago, Beneficiaries of ICDS not willing to participate in study. **Study tool:** A schedule consisting of two parts had been used. Schedule Part-I- Information regarding Socio-demographic profile of family. Schedule Part-II consists of questions relating to utilization of services under Integrated Child Development Scheme (ICDS) services.

Methodology: Study population under Rural Health Training Centre and Urban Health Training Centre. Of Sardar Patel Medical College Bikaner were selected. Assuming at least one ICDS beneficiary present in one house 283 houses each in rural and urban area were surveyed. A systematic sampling procedure was taken, every Kth house where K refer to sample interval. 1427 houses under rural training centre area⁶, 2383 houses under urban health training centre.⁷

$$“K”_{rural} = 1427 / 283 \cong 5,$$

$$“K”_{urban} = 2383 / 283 \cong 8$$

So in rural area every fifth house was surveyed and in

urban area every eighth house was visited for assessment of utilization of services provided under ICDS by beneficiaries. In the 566 houses thus surveyed (283 rural & 283 urban) 753 beneficiaries were actually present in rural study area, 795 beneficiaries were present in urban study area, whom all (1548) were then interviewed.

Data was collected by house to house visit. First house was selected with help of random numbers. Then moving leftwards every fifth house in rural and every eighth house in urban area was visited for collection of information. If the selected house was locked on day of visit, the information was collected from next house. For collection of information beneficiaries and mother/guardians of beneficiaries in case of children, were interviewed in a language they could easily understand.

Statistical analysis: The data was entered in Microsoft excel sheet and Chi square was used to assess association. **Ethical Approval:** Ethical clearance was obtained from the Institutional Ethics and Research Board of Sardar Patel Medical College Bikaner prior to data collection.

Results

Majority of beneficiary 484(31.27%) were women 15-45 years followed by 357(23.06%) belonging to children 6 months to 3 years group, 287(18.54%) belonged to children 3 to 6 year group, next were lactating mothers 163(10.53%) and pregnant women 161(10.40%) and the least were adolescent girls, they were 96(6.20%) of total study population.

Table: 1-Distribution of study population according to beneficiary group.

Beneficiary Group	Beneficiaries n=1548	
	No.	Percentage
Children 6months-3years	357	23.06
Children 3-6years	287	18.54
Adolescent Girls	161	10.40
Pregnant Women	96	6.20
Lactating Mothers	163	10.53
Women 15-45years	484	31.27
Total	1548	100.00

Socio-demographic profile

In our study majority of study population were Hindus (88.76%) followed by Muslims (9.43%) and remaining were Jain (1.49%) and Sikh (0.32%). Categorization of our study population on basis of caste showed that subject belonging to Other Backward Caste were maximum (56.27%) followed by Scheduled caste (28.10%) and remaining belonged to Other caste (15.63%). None of the beneficiary was from Scheduled Tribe In our study the study population belong equally to nuclear and joint families (nuclear-50.19% and joint-49.81). Distribution of study population on basis of socioeconomic status showed majority belonged to socioeconomic status of Middle class-III (37.86%), followed by Upper Middle class-II (31.91%), lower middle class-IV(27.39%), upper class-I(1.94%) and least were from lower class-V (0.09%). Distribution of study population/guardians (in case of children less than 6 years) on basis of education in our study showed that majority were educated up to Primary & Middle (51.49%) followed by Illiterate & just Literate (26.16%), Secondary & Senior secondary level(16.60%) and least were Graduate & above (5.75%). Occupation wise distribution of respondents in our study showed that 84.24% were House-wife, 7.49% were Student, 2.91% were Dependent and remaining 5.36% were Working.

Table: 2-Distribution of study population according to utilization of ICDS services.

ICDS Service utilization	Beneficiaries n=1548	
	No.	Percentage
Utilizing	815	52.65
Not Utilizing	733	47.35
Total	1548	100.00

Nearly equal distribution was found among utilization and non utilization of at least one ICDS service by beneficiaries. Among total 1548 beneficiaries 815 (52.65%) beneficiaries utilized any services provided under ICDS. Hindus were the major utilizers (55.02%). Among various caste other caste OBC & SC were utilizing nearly equally (55.11 % & 54.25%).

Majority of beneficiaries belonging to Joint families were utilizing services (63.29%). Lower class and Lower Middle class were utilizing higher at 64.29% & 60.61% respectively. Nearly equal beneficiaries were utilizing the services and in all groups of education level. Major utilizer beneficiaries according to occupation of respondent were House-wife 58.67%. A very highly significant association was found in various group and non utilization of ICDS services-Religion, Caste, Nature of family, Socioeconomic status & Occupation of beneficiary/guardian

Discussion

In our study overall 52.65% beneficiaries utilized at least any one service provided under ICDS, 54.71% and 50.69% beneficiaries from rural and urban area respectively utilized at least one of services provided under ICDS. In our study utilization of ICDS service was found higher in case of urban area and lower in rural area as compared with NFHS 4 (urban-40%, rural-59%).

Other studies showed higher utilization Meena JK (58.3%), Davis S F et al (60.6%), Patil K S & Kulkarni M V (77.15%), Bhagat V. M (89.29%), the reason behind lower utilization in our study may be may be lack of awareness about ICDS services among study population.^{4 8 9 10 11}

Socio-demographic variable affecting ICDS service utilization

In this study various socio-demographic variable were assessed for significant effect on utilization. In our study religion of beneficiary was found to a significant variable, while in the study done by Bhagat V M it was found to be insignificant. The reason may be lack of awareness and participation among other religions than Hindus in our study area.

In our study caste variable was found significant in utilization of ICDS services. The reason for this finding may be due less awareness about beneficial role of ICDS among various communities in our study area,

In our study nature of family was also a significant variable in service utilization of ICDS, while nature of family was not found significant in study conducted by Bhagat V M and Patil K S & Kulkarni M V. The reason for this difference in finding may due to traditionally

joint system of family plays an important role in utilization of ICDS services in our study area.

Table: 3-Utilization of ICDS services according to various socio-demographic variables.

Utilization of ICDS services						
Variables	Total (n)	Number	Percentage	χ^2	df	P
Total	1548	815	52.65	-	-	-
Study Area						
Rural	753	412	54.71	2.51	1	0.113
Urban	795	403	50.69			
Religion						
Hindu	1374	756	55.02	29.99	3	0.0001
Jain	23	8	34.78			
Muslim	146	51	34.93			
Sikh	5	0	0			
Caste						
OBC	871	480	55.11	15.94	2	0.0003
Other	242	99	40.91			
SC	435	236	54.25			
Nature of Family						
Joint	771	488	63.29	69.83	1	0.0001
Nuclear	777	327	42.08			
Socioeconomic status						
Lower Class	14	9	64.29	36.34	4	0.0001
Lower Middle Class	424	257	60.61			
Middle Class	586	327	55.8			
Upper Middle Class	494	208	42.11			
Upper Class	30	14	46.67			
Education of respondent						
Illiterate & Literate	405	204	50.37	2.48	3	0.4789
Primary & Middle	797	435	54.58			
Secondary & Senior Secondary	257	131	50.97			
Graduate & above	89	45	50.56			
Occupation of respondent						
Dependent	45	12	26.67	161.66	3	0.0001
House-wife	1304	765	58.67			
Student	116	0	0			
Worker	83	38	45.78			

Our study showed a significant difference in utilization of ICDS services according to socio-economic status, these findings were consistent with the study done by Bhagat V M and Patil K S & Kulkarni M V. Our study showed no significant difference in utilization of ICDS services and educational status, similar finding was also seen in study carried out by Patil K S & Kulkarni M V. However education was found significant variable in a study by Bhagat V M. Our study revealed that occupation is a significant variable in utilization of ICDS services, these findings were consistent with finding in a study by Bhagat V M. The level of significance of occupation was not found in study conducted by Patil K S & Kulkarni M V. The difference in findings may be due to inclusion of dependent and student category in our study. ^{4 8 9}

Conflict of Interest - Nil

Conclusion

The study found nearly half of the beneficiaries are utilizing ICDS services. This study also revealed significant association between various socio-demographic variables and utilization of ICDS services- religion, caste, nature of family, socio-economic status and occupation of beneficiary/guardian. This study shows that there is a relation between socio-demographic profile of beneficiary and service utilization of ICDS. Planning of IEC activities and BCC activities should be directed more in groups where participation is lacking.

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