Assessment of Utilization of Integrated Child Development Services Scheme in Uttarakhand

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Introduction

ICDS scheme has been playing its role effectively since 1975 when it was launched, but still there are some short comings which need to be addressed. Uttarakhand being one of the states with poor health indicators with respect to child and mother there is need to increase research on implementation of programs. Aims & Objectives: The present study was conducted to see utilization of services provided under ICDS scheme in Uttarakhand. Material & Methods: A cross sectional study was conducted in selected areas of Uttarakhand from October 2018 to June 2019. 505 households from 16 Anganwadi centers, from both urban and rural areas of Dehradun and Haridwar districts were included. Assessment of utilization of services was done by household interviews. Data was analyzed using SPSS V 23 software. Results: Availing supplementary nutrition services was the most utilized service (94.5%) followed by health education services (88.3%), health and referral services (83.2%), preschool education services (76.7%) and least utilized service was immunization service (69.3%). Conclusion: Various factors independently affecting utilization of services were identified. Overall utilization of services is highest among pregnant women and least among adolescent girls and women of reproductive age group.

Keywords
ICDS; Anganwadi; Utilization; Supplementary Nutrition; Preschool Education

Abstract

Background: ICDS scheme has been playing its role effectively since 1975 when it was launched, but still there are some short comings which need to be addressed. Uttarakhand being one of the states with poor health indicators with respect to child and mother there is need to increase research on implementation of programs. Aims & Objectives: The present study was conducted to see utilization of services provided under ICDS scheme in Uttarakhand. Material & Methods: A cross sectional study was conducted in selected areas of Uttarakhand from October 2018 to June 2019. 505 households from 16 Anganwadi centers, from both urban and rural areas of Dehradun and Haridwar districts were included. Assessment of utilization of services was done by household interviews. Data was analyzed using SPSS V 23 software. Results: Availing supplementary nutrition services was the most utilized service (94.5%) followed by health education services (88.3%), health and referral services (83.2%), preschool education services (76.7%) and least utilized service was immunization service (69.3%). Conclusion: Various factors independently affecting utilization of services were identified. Overall utilization of services is highest among pregnant women and least among adolescent girls and women of reproductive age group.

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Introduction

"The children of today will make the India of tomorrow. The way we bring them up will determine the future of the country", said Jawaharlal Nehru, first prime minister of India. This statement tells us importance of upbringing and wellness in children for a better India in future. In order to address high infant mortality, malnourishment and poor learning outcomes at that time, Government of India had launched Integrated Child Development Services (ICDS) scheme on October 2nd, 1975 on an experimental basis with support from UNICEF (1). This program is one of the largest, most prestigious and premier national human resource development programs by Government of India under Ministry of Women and Child development (2). In Uttarakhand at present among 13 districts there are 105 ICDS projects of which 8 are urban and 97 are rural. Under these projects out of a total 19614 Anganwadi and mini Anganwadi there are 1174 in urban and 18442 in rural
Aims & Objectives
1. To assess utilization of services of ICDS by
   beneficiaries in Uttarakhand.
2. To assess factors affecting utilization of services of
   ICDS scheme.

Material & Methods
Study design and the participants:
A Community based cross sectional study was done
between October 2018 to May 2019 in urban and rural
areas of Haridwar and Dehradun districts of Uttarakhand
state, India. Households of beneficiaries of ICDS scheme
were taken as unit of sampling. Beneficiaries included
pregnant and lactating mothers, children (0-6 years)
adolescent girls (10-19 years), women of reproductive age
(15-45 years) along with Anganwadi workers of the
selected Anganwadi (9). A multistage random Cluster
sampling technique was used to select Anganwadi
centers. From thirteen districts in Uttarakhand, two
districts Haridwar and Dehradun were randomly selected
by simple random sampling using lottery technique. Four
Anganwadi centers each from urban and rural areas of
both districts were randomly selected by simple random
sampling for conducting study. House to house interview
was done in selected areas for obtaining data on
utilization of services by households and factors affecting
it. Household visits were done in catchment area of
selected Anganwadi centers. Care was taken to include
farthest household from the AWC
Utilization of services and factors affecting it were
assessed by interview using a semi structured
questionnaire comprising of items such as demographic
profile of the household, services available for the
beneficiaries under ICDS and satisfaction rating of each
service utilized. Sample size was calculated considering
prevalence of utilization of services to be 28.6% (10) and
a design effect of 1.5. Sample was calculated as 483
households which was rounded off to 500. But 505
households were covered. Households of eligible
beneficiaries from each selected Anganwadi was included
in the study. Those immigrants to the Anganwadi
catchment area who were not enrolled in Anganwadi
center and participants who did not give consent to
participate in the study were excluded. The data was
entered into MS Excel and analyzed using SPSS version
23.0 for windows. Descriptive data was presented as
frequencies, proportions and means ± standard deviations.
Categorical variables were reported as proportions and
continuous data as means ± 2 standard deviation and
median (IQR). To identify factors effecting utilization of
services univariate analysis was done followed by binary
logistic regression analysis. The categorical variables with
multiple categories for which Cochran’s criterion was not
met and the continuous variables which were not in
normal distribution were divided into two related
categories. P-values less than 0.05 were considered to be
statistically significant.

Results
Utilization of services under ICDS scheme in Uttarakhand
varied for different services provided under it. (Table 1)
shows at household level most utilized service was
supplementary nutrition service (94.5%) followed by
nutrition and health education services (88.3%), health
and referral services (83.2%), preschool education services
(76.7%) and least utilized service was immunization service
(69.3%). Most common reason for not sending children for
preschool education at Anganwadi center was that people
opt to send their children to private school (61.8%). Most
common reason for not taking supplementary nutrition was
no felt need of taking supplementary nutrition (42.3%).
Regarding immunization, availing this service at sub center
than Anganwadi center was found to be most common reason
(91.7%). Most common reason for not utilizing health and
referral services under ICDS scheme was no felt need for
these services (35.1%). Overall utilization was highest
among nursing mothers followed by antenatal mothers,
children between 3-6 years age, children less than 3 years
age, and least utilization was by adolescent girls and
women of reproductive age group. Most common reason
for not utilizing nutrition and health education services
under ICDS scheme as reported by beneficiaries was that
Anganwadi worker never give any advice (44.45%).
Satisfaction of households was with a median of 4 on a
Likert scale of 0-5. Only factor that was significantly
affecting preschool education activity was households
having up to 3 total family members. Residing in urban
area has an independent effect in utilization of
supplementary nutrition services. Residing in rural area,
belonging to Muslim religion, belonging to general caste,
residing in <100 meters from Anganwadi center,
households with ≤3 family members, households with ≤2
beneficiaries had significant independent effect on
utilization of health and referral services under ICDS
scheme. Residing in urban area, households with age of
head of family ≤30 years were affecting utilization of
nutrition and health education services under ICDS
scheme independently. (Table 2) depicts that on
conducting a unique scoring for utilization of services by
beneficiaries as percentage utilization score and it was
highest among nursing mothers was (85.0±23.9) followed
by antenatal mother (79.2±38.9). For rest of beneficiaries’ median of utilization score of children of age between 3 to 6 years was (75), followed by Children < 3 years (66.7) and least by adolescents and female of reproductive age group (50). There was a significant difference between percentage utilization scores of antenatal mothers, children < 3 years of age, and children of age group from 3 to 6 years among urban and rural area with more utilization scores in urban area.

**Conclusion**

The utilization of services under ICDS in Uttarakhand was varying for different services, with supplementary nutrition among highest utilized service and immunization among the least utilized service. The overall utilization was highest among the pregnant women and least among adolescent girls and women of reproductive age group. The overall satisfaction regarding the available services was with a median of 4 out of 5 on a liker scale for the services utilized under ICDS.

**Recommendation**

Even though ICDS scheme proved to be effective by improving condition of Children in our country there is still a felt need to upscale the scheme. Initiatives to involve community in various activities of ICDS scheme should be introduced by creating awareness on importance and impact of scheme. Awareness should be generated regarding the importance of supplementary nutrition and take-home ration. There is need to develop a new cadre of workers for various other activities of government like surveys, enrolment drives, election duties which will reduce burden on Anganwadi workers so that there is no difficulty in delivery of services under ICDS scheme.

**Limitation of the study**

Household was taken as sampling unit which made individual assessment of utilization difficult, however utilization scores for each type of beneficiary was calculated.

**Relevance of the study**

Despite of this functional scheme since last 40 years of its implementation, results and outcomes are not as expected. There is a need to explore factors to understand inability of ICDS to achieve expected results even after 40 years of implementation.

**Authors Contribution**

All authors have contributed equally.

**Acknowledgement**

The authors are grateful to the residents of selected households for their cooperation and participation in the study.

**References**


**Tables**

**TABLE 1 UTILIZATION OF SERVICES UNDER ICDS SCHEME IN UTTRAKHAND**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Service</th>
<th>Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preschool education (N=146)</td>
<td>112 (76.7%)</td>
</tr>
<tr>
<td>2</td>
<td>Supplementary nutrition (N=471)</td>
<td>441 (94.5%)</td>
</tr>
<tr>
<td>3</td>
<td>Immunization (N=473)</td>
<td>328 (69.3%)</td>
</tr>
<tr>
<td>4</td>
<td>Health and referral (N=505)</td>
<td>420 (83.2%)</td>
</tr>
<tr>
<td>5</td>
<td>Nutrition and health education (N=505)</td>
<td>446 (88.3%)</td>
</tr>
</tbody>
</table>

**TABLE 2 PERCENT UTILIZATION OF ICDS SERVICES BY THE BENEFICIARIES**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Type of beneficiary</th>
<th>% Utilization (Mean±2SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pregnant women (N=228)</td>
<td>79.2±38.9</td>
</tr>
<tr>
<td>2</td>
<td>Lactating mothers (N=137)</td>
<td>85.2±23.9</td>
</tr>
<tr>
<td>3</td>
<td>Children &lt; 3 years (N=277)</td>
<td>66.7±(66.7-66.7)</td>
</tr>
<tr>
<td>4</td>
<td>Children of age between 3 to 6 years (N=153)</td>
<td>75*(50-100)</td>
</tr>
<tr>
<td>5</td>
<td>Adolescent girls and women of reproductive age group [19-45 years] (N=204)</td>
<td>50*(0-75)</td>
</tr>
</tbody>
</table>

*Median (IQR)