DISSERTATION REPORT

AT

TATA STEEL FOUNDATION, JAMSHEDPUR, JHARKHAND

(22nd FEB TO 23nd MAY, 2022)

A REPORT ON

A Cross Sectional Study on the Knowledge among Anganwadi Workers regarding services of ICDS(integrated child development services) in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha.

BY

Dr. SARVESH GUPTA

PGDM (HOSPITAL AND HEALTH MANAGEMENT)

2021-2023

IIHMR DELHI

International Institute of Health Management Research, New Delhi

ACKNOWLEDGEMENT

I would like to express my sincere appreciation and gratitude to **TATA STEEL FOUNDATION (TSF)** for providing me with the valuable opportunity to undertake an internship program. It was an incredible chance for me to enhance my professional skills and gain hands-on experience in a reputed organization.

During my internship period, I had the privilege of meeting and working with exceptional professionals who imparted their knowledge and guidance.

I am deeply grateful to **Dr. ANUJ BHATNAGAR** (Head Public Health TSF), for sparing his precious time to mentor me and keep me on the right track. His unwavering support and guidance were instrumental in the successful completion of my project.

I am also thankful to **Mrs. RUTH KERKETTA** (Program Officer), for her valuable suggestions, advice, and constant support. She made my life easier by arranging all the facilities required for my project and provided me with an excellent learning environment.

This opportunity has been a significant milestone in my career development. I will always cherish the knowledge and skills that I gained from this internship and will use them to achieve my career objectives.

.We would like to thanks IIHMR Delhi for this opportunity and **Dr. SUKESH BHARDWAJ** for his valuable guidance to complete this project under his mentorship.

Thanks & Regards

Dr. Sarvesh Gupta

Certificate of Approval

The following dissertation titled **"A Cross-Sectional Study on the Knowledge among Anganwadi Workers regarding services of ICDS(integrated child development services) in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha"** at **"Tata Steel Foundation, Jamshedpur, Jharkhand"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee
for evaluation of dissertation.

Name	Signature
PRAVEENKUMAR	
VINAY TRIPATHI	
HIMANSHU TOLANI	

Completion of Dissertation

The certificate is awarded to

Dr. Sarvesh Gupta

In recognition of having successfully completed his internship in the Public Health vertical of Tata Steel Foundation's

HEALTH AND NUTRITION PROGRAMME

He has successfully completed his project on

"Knowledge assessment of Aanganwadi workers on nutrition-specific services of integrated Child Development Services (ICDS) in the Mandu block of Jharkhand and Harichandanpur, Rangeilunda and Chatrapur blocks of Odisha."

Date of Submission: 23-05-2023

Organization: Tata Steel Foundation (TSF), Jamshedpur

He comes across as a committed, sincere and diligent person who has a strong drive and zeal for learning.

We wish all the best for his future endeavors.

Lead, Public Health
Tata Steel Foundation

Head, Public Health
Tata Steel Foundation

Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Sarvesh Gupta**, a graduate student of the PGDM (Hospital & Health Management) has worked under our guidance and supervision. He is submitting this dissertation titled "To assess the level of Knowledge among Anganwadi Workers regarding nutrition-specific services of integrated child development services in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha" at "TATA Steel Foundation, Jamshedpur" in partialfulfillment of the requirements for the award of the PGDM (Hospital & Health Management).

This dissertation has the requisite standard and to the best of our knowledge no part of it has beenreproduced from any other dissertation, monograph, report or book.

Dr Sukesh Bhardwaj
Assistant Professor
IIHMR, Delhi

22/05/2023
Ms. Ruth Sangita Kerketta
Program manager,
Nutrition program
TATA Steel Foundation, Jamshedpur

MANAGER-NUTRITION

TATA STEEL FOUNDATION JSR

FEEDBACK FORM

Name of the Student: **Dr. Sarvesh Gupta**

Name of the Organization in which dissertation has been completed: **TATA Steel Foundation (TSF)**

Area of Dissertation: Health & Nutrition Programme

Attendance: 100%

Objectives achieved: Yes.

Deliverables:

- To develop a comprehensive operation manual for the existing Health & Nutrition Project of Tata Steel Foundation.
- To conduct Knowledge assessment of the anganwadi workers in the Mandu block of Jharkhand as well as Harichandanpur, Rangeilunda & Chatrapur blocks of Odisha.

Strengths: Good observer, Good in communication and analytical Skills.

Suggestions for Improvement (if any) :

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Date: 23-05-2023
Place: Jamshedpur
TSF

23/05/23
Signature of the Officer-in-Charge

TATA STEEL FOUNDATION JSR

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Sarvesh Gupta student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at "Tata Steel Foundation" from 22/02/23 to 23/05/23.

The Candidate has successfully carried out the study designated to him during internship training and his/her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. Sumesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Mentor
IIHMR, New Delhi

7

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "A Cross Sectional Study on the Knowledge among Anganwadi Workers regarding services of ICDS(integrated child development services) in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha." and submitted by Dr. Sarvesh Gupta Enrollment No. – PG/21/092 under the supervision of Dr. Sukesh Bhardwaj for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from 2021 to 2023 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

8

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH (IIHMR)
Plot No. 3, Sector 18A, Phase- II, Dwarka, New Delhi- 110075
Ph. +91-11-30418900, www.iihmrdelhi.edu.in

CERTIFICATE ON PLAGIARISM CHECK

Name of Student (in block letter)	Dr. Sarvesh Gupta		
Enrolment/Roll No.	PG/21/092	Batch Year	2021-2023
Course Specialization (Choose one)	Hospital Management	Health Management	Healthcare IT
Name of Guide/Supervisor	Dr. Sukesh Bhardwaj		
Title of the Dissertation/Summer Assignment	A Cross Sectional Study on the Knowledge among Anganwadi Workers regarding services of ICDS in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha.		
Plagiarism detects software used	"TURNITIN"		
Similar contents acceptable (%)	Up to 15 Percent as per policy		
Total words and % of similar contents Identified	13%		
Date of validation (DD/MM/YYYY)	26/06/2023		

Guide/Supervisor
Name: Dr. Sukesh Bhardwaj
Signature:
Report checked by

Student
Name: Dr. SARVESH GUPTA
Signature:

Institute Librarian
Ashok Kumar
Signature:
Date:
Library Seal

Dean (Academics and Student Affairs)
Signature:
Date:
(Seal)

9

TABLE OF CONTENTS

ABBREVIATIONS

ABBREVIATION	MEANING
1. TSF	Tata Steel Foundation
2. ICDS	Integrated child development services
3. TSRDS	Tata Steel Rural Development Society
4. CSR	Corporate Social Responsibility
5. CBTS	Community Based Total Sanitation
6. TEDP	Tribal Entrepreneurship Development Programme
7. AWW	Anganwadi worker
8. WHO	World Health Organization's
9. TMH	Tata Main Hospital
10. SAM	Severe Acute Malnutrition
11. MAM	Moderate Acute Malnutrition
12. KAP	knowledge, attitudes, and practises
13. NGO's	Non-governmental organisations
14. CHW's	Community health workers
15. TNA	Training needs assessment
16. NHE	Nutrition Health Education

Chapter 1- INTRODUCTION

About The Organisation

One of the largest steel producers in the world, Tata Steel has operations in over 26 countries and a substantial presence in India. One of the top companies in this field, the company is well known for its commitment to Corporate Social Responsibility (CSR).

Tata Steel's CSR initiatives are centred on the four key areas of education, health and sanitation, livelihoods, and the environment. Because it thinks these sectors are essential to the development of the communities where it operates, the company has made a number of measures to help them.

To help youngsters in the communities where its operations are located have access to high-quality education, Tata Steel has launched a number of educational programmes.

Furthermore, the company has built educational institutions all across the world, including the Tata Steel Rural Development Society (TSRDS) School in Kalinganagar, Odisha, which educates more than 1,200 children.

Tata Steel has made numerous efforts to improve the hygienic environment in the communities in the areas of sanitation and health. Programmes like the Community Based Total Sanitation (CBTS) programme, which attempts to promote better hygiene practices and reduce open defecation, fall under this category. Additionally, the company has opened clinics and hospitals in several places, most notably Jamshedpur's Tata Main Hospital, which sees more than a million patients a year.

Tata Steel's livelihood initiatives promote sustainable livelihoods and local income generation. Included in this are initiatives like the Tribal Entrepreneurship Development Programme

(TEDP), which provides tribal communities with the support and training they need to start their businesses. Additionally, the company has built several micro businesses throughout the nation, including the Tata Steel Rural Development Society (TSRDS) Livelihoods Centre in Kalinganagar, which provides advice and support for ventures that generate revenue.

The business is committed to preserving the environment, and it has taken several steps to reduce its carbon impact and promote sustainable development. This includes initiatives like the Green School programme, which promotes environmental awareness and sustainability in educational institutions, and the Garbage to Wealth programme, which tries to transform garbage into valuable products.

The TATA Steel Foundation (TSF) formerly known as TSRDS.

TSF is dedicated to collaborating with the local community and all other Indian stakeholders to build a sustainable future. The organisation focuses its efforts on upholding and promoting tribal culture and history while also enhancing the health and sanitation of the communities it serves.

To do this, the organisation has launched some initiatives, including the Samvaad tribal conclave, tribal language centres, curated tribal literature programmes, and training on tribal musical instruments. Tribal communities in India may be able to better preserve their traditions for future generations with the aid of these programmes, while simultaneously promoting their unique culture and heritage.

The goal of the tribal leadership programme is to discover and guide future tribal leaders. It provides them with the training and resources they need to succeed as community leaders and change agents. The Samvaad tribal conclave brings together tribal leaders, academics, activists,

and decision-makers to discuss issues related to tribal welfare and development. The organisation has also established tribal language centres to save and enhance the indigenous languages spoken by tribal groups. These centres provide teaching and resources for language documentation, translation, and revitalization.

Authors and poets can share their work in curated tribal literature programmes, enhancing the rich literary history of tribal cultures. TSF also arranges workshops and training sessions on tribal musical instruments to make sure that the traditional music of these communities is preserved and passed down to subsequent generations.

In addition to its cultural initiatives, TSF is committed to improving the community's health and hygiene. It also works collaboratively with international governments and non-governmental organisations to implement healthcare initiatives that allow people access to top-notch medical treatment, clean water, and hygienic facilities.

The organization's overall goals centre on building a sustainable future via the preservation and promotion of the unique cultural legacy of India's tribal people as well as the improvement of the health and wellbeing of the communities it works with. It believes that by working together, it can better the future of everyone engaged.

Chapter 2- PROJECT

Introduction

One of the biggest community-based programmes in the world, the Integrated Child Development Services (ICDS) programme is funded by the Indian government. Its goal is to combat malnutrition in children ages 0 to 6 with a focus on young children, pregnant women, and nursing mothers. The programme is the biggest outreach initiative for the care and protection of young children, having been implemented all across the nation. To boost the programme and enhance the health and nutrition of children and expectant mothers, the government intends to extend the ICDS system to all 7076 blocks in the nation. (1)

The anganwadi worker (AWW), a female frontline employee who performs ICDS services and is essential in providing services like good nutrition and immunisation, is a key component of the system. The AWW's performance at the anganwadi centres depends heavily on their education and knowledge of these services. The success of the ICDS system is dependent on the performance and profile of the AWW, including their educational background, professional experience, and skill set. Research on AWW understanding of ICDS services, notably in Jharkhand and Odisha, is nonetheless scarce. In order to determine the amount of AWW awareness of ICDS services in the Mandu Block of Jharkhand and the Harichandanpur, Rangeilunda, and Chatrapur Blocks of Odisha, this study was carried out. (2)

As of March 2021, there were over 13.77 lakh functioning Anganwadi Centres in India, according to the most recent data from the Ministry of Women and Child Development, Government of India, offering day care services to expectant and nursing women and children

under the age of six. Around 8.53 crore people were served by these facilities, including 2.08 crore expectant and nursing women and 6.45 crore young children under the age of six. (3)

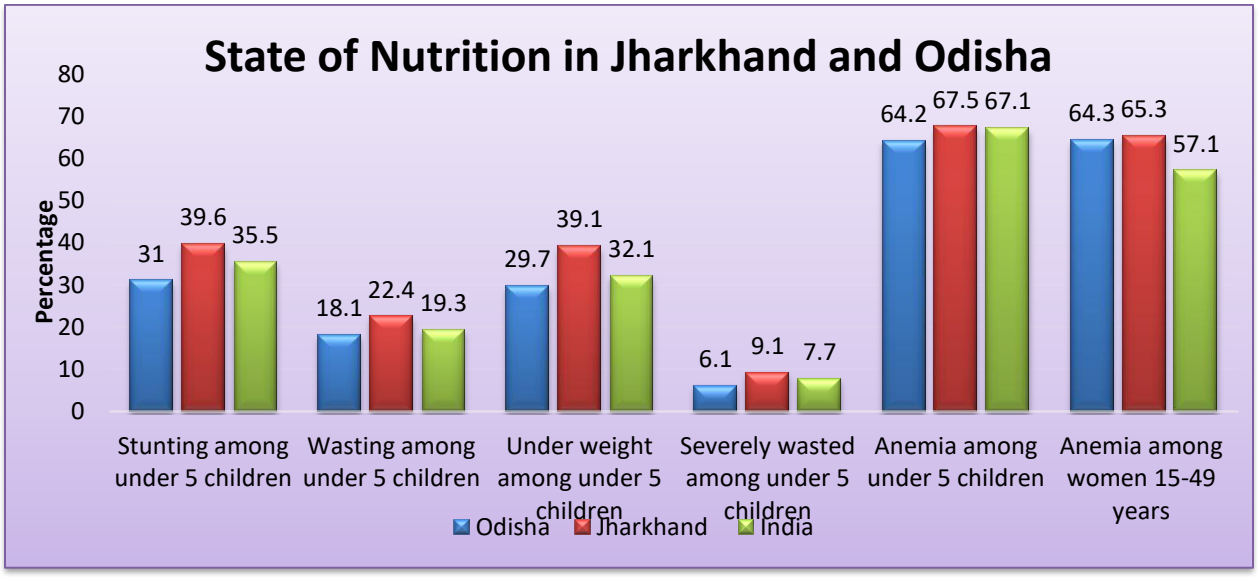


Figure 1 Indicators for Odisha, Jharkhand & India.

Types of Undernutrition

Weight-for-age, height/length-for-age, and weight-for-height/length are the three indices that are used to measure three different nutritional conditions: underweight, stunting, and wasting, respectively. Each of the three nutrition indicators is expressed as a standard deviation (Z-score) from the reference population's median, using this information to further categorise undernutrition as mild, moderate, or severe.

Underweight

A recommended indicator to evaluate changes in the severity of malnutrition over time is underweight, which is based on weight-for-age and is a composite measure of stunting and wasting. Malnutrition, whether chronic, acute, or both, may be the cause of this illness. Due to the ease with which weight may be measured, underweight is frequently employed as a basic indicator of the state of a population's health. Children who are even slightly underweight have a higher risk of dying than those who are severely underweight, according to the evidence. In accordance with the World Health Organization's (WHO) kid Growth Standards, an underweight kid has a weight-for-age Z score that is at least two standard deviations (-2SD) below the median.

Stunting

Stunting is when a child does not grow to their expected height or length as compared to other children their own age who are healthy and well-fed. Stunting is a sign of linear growth retardation, which can be brought on by repeated illnesses or inadequate nutrition over an extended period of time. Chronic and repeated illness may make it worse. It is a sign of previous growth failure. It is linked to a number of long-term factors, including persistent dietary deficiencies, recurrent infections, persistent improper feeding practices, and poverty. Stunting frequently causes intellectual capacity reduction, delayed mental growth, and subpar academic performance. This in turn has an impact on national economic productivity.

Wasting

Wasting is a recent nutrient deficiency that may be impacted by recent diarrheal diseases and other acute illnesses. Wasting is a sign of current or acute malnutrition brought on by actual weight loss or failure to acquire weight. Inadequate food intake, improper feeding techniques, illness, infection, or, more frequently, a combination of these conditions are some of the causes. Wasting can alter quickly in both population groups and specific children, and it exhibits distinct seasonal patterns linked to shifts in food supply or disease incidence, to which it is extremely sensitive. In order to be considered waste, a child's weight-for-height Z score must be at least two standard deviations (-2SD) below the WHO Child Growth Standards median.

Severe Acute Malnutrition (SAM)

Very low weight-for-height/length (Z-score below -3 SD of the median WHO child growth criteria), a mid-upper arm circumference of 115 mm, or the development of nutritional oedema are all indicators of severe acute malnutrition. There are social and medical aspects to severe acute malnutrition. Severe Acute Malnutrition (SAM) is caused by a variety of reasons, including a lack of exclusive breastfeeding, the introduction of complementary meals too late, the giving of diluted feeds with fewer nutrients, recurrent respiratory and enteral infections, ignorance, and poverty. SAM greatly raises a child's risk of dying before the age of five. It can increase the case fatality rate in children with common infections like diarrhoea, which is a direct or indirect cause of child death.

Moderate Acute Malnutrition

A child who is between 70 and 80 per cent of the median weight for height (Z score between -3 SD and -2 SD), or who has a mid-upper arm circumference between 115 and 125 cm without oedema, is considered to have moderate acute malnutrition. The child should also be alert, hungry, and clinically healthy. Children who have moderate acute malnutrition can be treated in the outpatient setting when supplemental feeding is allowed.

Integrated Child Development Services (ICDS) Program:

In order to offer a range of services to young children under the age of six as well as expectant and nursing mothers, the ICDS programme was introduced in 1975. The programme offered non-formal education, vaccinations, health screenings, supplemental nutrition, and immunisations. The largest programme of its sort in the world, the ICDS programme is still in operation.

The Government of India's flagship programme, Integrated Child Development Services (ICDS), seeks to improve the health and nutrition of young children, pregnant women, and nursing mothers. The Ministry of Women and Child Development is in charge of carrying out the programme, which was first introduced in 1975.

The main objectives of the ICDS program are as follows:

a) To enhance the dietary and physical health of kids under the age of six.

b) To lower the prevalence of death, disease, hunger, and dropout rates.

c) To support children's growth through early childhood education.

d) To offer assistance and services to expectant and nursing mothers.

e) To advance gender equality and give women more power.

The community-based ICDS programme is carried out by a network of Anganwadi centres. Every village and urban slum has an Anganwadi centre, which acts as the hub for providing services under the ICDS programme. Anganwadi centres provide the following services:

I. Supplemental nutrition: Hot cooked meals, take-home rations, and nutritional supplements are offered to children under the age of six as well as pregnant and nursing women.

II. Immunisation: To protect young children from illnesses including polio, measles, and tetanus, vaccination services are offered.

III. Health examinations: To identify and prevent diseases, children under the age of six, pregnant women, and nursing mothers have routine health examinations.

IV. Early childhood education: To foster the cognitive and social growth of children between the ages of three and six, early childhood education is offered.

V. Health and nutrition education: To encourage better childcare practises, mothers and carers are given health and nutrition education.

VI.Referral services: Children and women who need specialised medical treatment might get the m through anganwadi centres.

The following elements of the ICDS programme are in addition to the services offered by Anganwadi centres:

i. ICDS programme service providers' knowledge and abilities are improved through training and capacity building of Anganwadi staff and supervisors.

ii. Monitoring and evaluation to make sure the ICDS program's services are effective and of high quality.

iii. Research and advocacy to produce knowledge that is supported by evidence and raise awareness of the value of early childhood development.

Children under the age of six, pregnant women, and breastfeeding women in India have improved health and nutrition because of the ICDS programme. The program's insufficient coverage in some areas and the demand for better facilities and resources at Anganwadi centres are two issues that must yet be resolved.

The ICDS programme is being implemented and Anganwadi centres are receiving support from several non-governmental organisations (NGOs) in addition to the government. These groups seek to close coverage and infrastructural gaps while also enhancing the quality of services offered under the programme.

Overall, the ICDS programme is a significant effort to improve the health and welfare of Indian children under the age of six as well as pregnant and breastfeeding mothers. Although there are still issues to be resolved, the programme has significantly improved the nutritional and physical health of the nation's most disadvantaged inhabitants.

Previous Studies: *Review of literature*

The purpose of this study was to gauge Anganwadi workers' (AWW) familiarity with integrated child development services (ICDS) offerings. An organised questionnaire was utilised to gauge AWW's familiarity with ICDS component services. Results revealed that just 39% of respondents knew more about nutritional supplementation than the median score and that 55% of respondents were unaware of ICDS services. The AWW's educational background and training have shown a strong correlation with their understanding of ICDS components. The study makes a case for the necessity of raising AWWs' training standards and their knowledge of various ICDS components. (2)

The goal of the study was to assess how well a four-day interactive training programme for community health workers (CHWs) improved their knowledge, attitudes, and practises (KAP) concerning maternal and infant health. 78 CHWs from Recife, Brazil's Family Health Units participated in the randomised controlled study and were assigned at random to the intervention or control groups. The training course was given to the intervention group while it was not given to the control group. After a year, the intervention group considerably outperformed the control group in terms of knowledge, practice, and attitude scores as well as overall KAP scores. In addition, the intervention group's KAP scores continued to significantly improve a year following the training, but those of the control group did not alter. The study concludes that the training programme on action-oriented home visits for expectant women and newborns improved CHWs' KAP over time and may be used as a guide for ensuring the retention of learned skills. (4)

Globally, severe acute malnutrition (SAM) has a substantial role in child mortality. In order to evaluate healthcare professionals' knowledge, attitudes, and practises regarding the facility-based management of children with SAM, a study was carried out in Bangladesh. The qualitative study includes 28 hours of observation in each facility as well as interviews with medical professionals from 4 district hospitals and 2 tertiary care facilities. The findings indicated that while nurses had little knowledge of controlling SAM in facilities, doctors had great knowledge in this area. Although there were inappropriate practices in relation to anthropometric measurements, blood glucose testing, dehydration monitoring, necessary micronutrient supplementation, and follow-up of children with SAM, both doctors and nurses demonstrated a positive approach towards handling childhood SAM. (5)

The goal of this study was to find any gaps in the staff members of the health and Integrated Child Development Services (ICDS) programmes in Gujarat, India's Devbhumi Dwarka area. Using a descriptive cross-sectional study design, the researchers conducted a training needs assessment (TNA) to identify programme gaps and the required training to close them. According to the survey, 49% of the health and ICDS employees got just partial training covering a little amount of nutrition-related material within the previous year. According to the study, comprehensive nutritional refresher training is required, as well as training in soft skills like supportive supervision and effective communication. In order to effectively fulfil the training needs, the study suggests employing creative training methods on digital platforms. (6)

In both urban and rural locations, the study evaluated the level of knowledge held by Anganwadi workers (AWWs) in relation to several Integrated Child Development Service (ICDS) components. The largest and most distinctive early childhood care and development programme in the world is called the ICDS programme. Children between the ages of 0 and 6, expectant and

nursing mothers, and teenage females are all recipients of ICDS. Through the use of an interviewing technique and a prestructured questionnaire, data was gathered. The findings revealed that 68.3% of AWW had a moderate knowledge score for ICDS components, 18.3% had a poor knowledge score, and 13.3% had a high knowledge score. The study came to the conclusion that regular refresher training sessions are required to improve the AWWs' knowledge and enable them to provide better services. (7)

Anganwadi workers (AWWs), the frontline employees of the Integrated Child Development Services (ICDS) initiative who are based in the community, are the subject of this study. AWWs are essential in delivering assistance to mothers and young children, who are a vulnerable population. The study evaluated the profile of AWWs, their knowledge, and the issues they encountered at work. The majority of AWWs, according to the survey, were in their 20s to 30s, had a secondary education, and had five to ten years of experience. Infrastructure-related issues and a lack of playthings were the top issues that AWWs cited. The majority of AWWs served populations of 100 to 500 people and offered JSY, prophylaxis for anaemia and blindness, and participation in the DOTS initiative. (8)

In this study, mothers and Anganwadi workers (AWWs) were asked about their knowledge, attitudes, and practises (KAP) concerning maternal health care during pregnancy and infant and young child feeding (IYCF) practises. The ICDS program's goals were well known to the AWWs, but they knew nothing about the value of the Nutrition Health Education (NHE) service. Mothers' knowledge scores about IYCF were below average. Mothers made good use of antenatal care, but they did not make the best use of nutritional supplements or attend ICDS centre sessions. Convergence between ICDS and the health industry was lacking. However, with

the help of effective interventions, ICDS staff members were able to provide better counselling and nutrition and health services, and mothers adopted the best IYCF practices. (9)

Previous Studies: *Review of literature Table*

Study	Aim	Method	Key Findings	Implications
1	Assess knowledge of ICDS among anganwadi workers	Structured questionnaire	Education and training were linked to ICDS knowledge, with 55% of AWWs unaware of ICDS programmes.	Need to raise AWWs' awareness and expertise, as well as the standard of training given
2	Evaluate effectiveness of training course for CHWs	Randomized controlled study	In comparison to the control group, the intervention group had considerably higher KAP scores and continued to make progress after a year.	A training programme that improved CHWs' KAP over time can be used as a template for maintaining newly acquired skills.
3	Assess knowledge, attitude, and practice of healthcare providers	Qualitative study involving interviews and observation	While nurses had enough training, good attitudes, and adequate knowledge, doctors possessed extensive knowledge.	Importance of improving understanding and appropriate conduct in respect to national recommendations for the inpatient treatment of children with SAM

	regarding SAM			
4	Identify gaps in training for health and ICDS staff	Training needs assessment using a descriptive cross-sectional study design	49% of the workers did not get nutrition-specific training the previous year, and the training was only partially covered with nutrition-related material.	There is a need for comprehensive nutritional refresher training, as well as new training methods leveraging digital platforms and soft skills like supportive supervision and communication.
5	Assess knowledge status of AWWs regarding ICDS components in urban and rural areas	Pre-structured questionnaire using interview method	68.3% of AWWs had a moderate knowledge score, necessitating regular refresher training sessions to further understanding.	Refresher training sessions are required often to improve AWWs' expertise and help them provide better services.
6	Assess profile of AWWs and their knowledge	Descriptive study using interviews	The majority of AWWs were between the ages of 20 and 30, had a secondary education, and had five to	Need to deal with infrastructure-related problems and supply enough playthings

	and problems faced while working		ten years of experience. Inadequate play materials and infrastructure-related issues were the main challenges.	
7	Assess KAP of AWWs and mothers regarding maternal health care practices during pregnancy and IYCF practices	Quantitative study using surveys	Although AWWs were informed about the goals of the ICDS programme, they knew little about the NHE service, and mothers' knowledge ratings for the IYCF were less than ideal.	Need for ICDS staff to provide better counselling and nutrition and health services, and for mothers to adopt the best IYCF practises

Need for the Study: *Statement of problem*

This study aims to assess the degree of knowledge possessed by Anganwadi Workers (AWW) on the nutrition-specific services provided by the Integrated Child Development Services (ICDS) programme in the Mandu Block of Jharkhand and the Harichandanpur, Rangeilunda, and Chatrapur Blocks of Odisha. In order for the ICDS to provide services like proper nutrition and vaccination, the AWW is crucial, and their level of expertise is crucial to their efficiency. However, there is a dearth of research on how AWW perceive ICDS services, particularly in Jharkhand and Odisha. The study makes an effort to fill up this knowledge vacuum and pinpoint areas where the ICDS programme needs to be strengthened in order to improve the health and nutrition of kids and expecting moms. (10)

The goal of the issue statement is to ascertain how well-informed AWW are about the nutrition-specific services offered by ICDS in these two locations. Using this data, tailored interventions will be created to improve AWW performance and, in turn, the health and nutritional outcomes for kids and expecting mothers in these regions. (10)

Research Question "What is the level of Knowledge among Anganwadi Workers regarding nutrition-specific services of Integrated child development services in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha?"

Objective-

I. To assess the current level of knowledge of Anganwadi Workers (AWW) regarding nutrition-specific services of Integrated Child Development Services (ICDS) program in the Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha.

II. To identify the gaps in knowledge of AWW regarding ICDS services related to nutrition in the 4 Blocks of Jharkhand and Odisha.

III. To identify the factors that influence the level of knowledge among AWW regarding nutrition-specific services of ICDS program in the Four study areas. And Give recommendations for the same for targeted interventions.

Inclusion criteria

• Anganwadi employees who are willing to consent to participation in the study.

• The research will involve anganwadi workers who have worked in the Mandu Block of Jharkhand and the Harichandanpur, Rangeilunda, and Chatrapur Blocks of Odisha for more than a year.

Exclusion criteria

• Anganwadi workers outside in the Harichandanpur, Rangeilunda, and Chatrapur Blocks of Odisha and the Mandu Block of Jharkhand.

• Those anganwadi employees who have been employed for less a year.

METHODOLOGY

- **Study design:-** Cross-sectional study

- **Sample Size Formula:-** $N = 4PQ/d^2$

Where, • P = Prevalence (from previous studies)

• Q = 100 – P

• d = allowable error (5-20% of P)

So our, **P= 68, Q= 32 & d= 6.8** (10% of P).

Sample Size comes out to be **189**.

Data source-

The data will be collected through a Standardized in the the Mandu Block of Jharkhand and Harichandanpur Block, Chatrapur block , & Rangeilunda Block of Odisha. A checklist is prepared for the same.

Tools to be used – MS Excel , PowerBI Desktop

Results

Demography data of the AWW

1. **Age (years):** The dataset comprises individuals ranging in age from 21 to 62 years. The age group with the highest frequency is between 35 and 40 years, encompassing a substantial portion of the sample population. However, it is important to note the presence of outliers, represented by individuals in their early 20s as well as those above 50 years of age.

2. **Class Passed:** Approximately 83% of the individuals in the dataset have completed education ranging from 10th to 12th grade or have attained a graduate degree. This indicates a significant majority with a moderate to high level of academic qualification. Moreover, around 4.2% of the individuals have pursued post-graduate education, reflecting a higher degree of educational attainment. However, it is worth noting that a small portion, approximately 12.7%, have completed education ranging from 1st to 9th grade, suggesting a lower level of educational achievement.

3. **Marital Status:** The dataset predominantly comprises married individuals, accounting for 90.5% of the sample population. While the majority of respondents are married, there are also a few cases of widowed individuals, representing approximately 3.2% of the dataset.

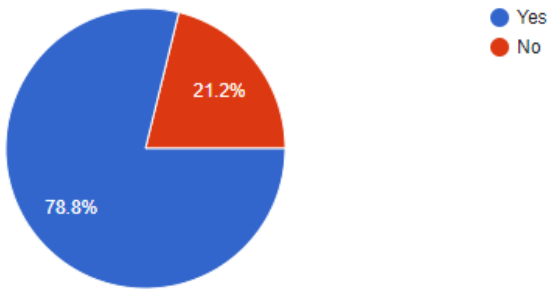
4. **Religion:** With the exception of nine entries, all individuals in the dataset belong to the Hindu religion, constituting approximately 95.2% of the sample population. The small

number of entries, amounting to 4.8%, indicates individuals affiliated with the Muslim religion.

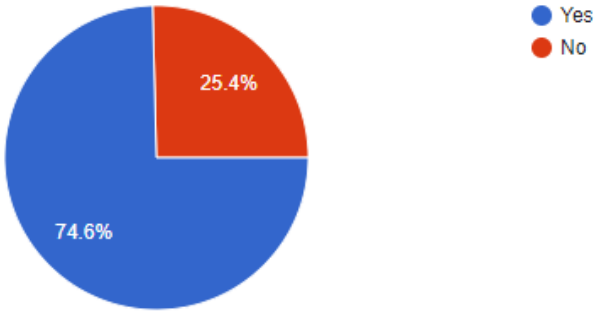
5. **Caste Group:** The dataset encompasses individuals from diverse caste groups, including ST (Scheduled Tribe), OBC (Other Backward Classes), SC (Scheduled Caste), and Unreserved categories. Among these groups, OBC and ST have the highest representation, accounting for approximately 42.9% and 41.8% respectively. There are also 15 entries representing the Unreserved category and 13 entries for the SC category. These findings highlight the varied caste composition within the dataset.

Responses For the Questionnaire

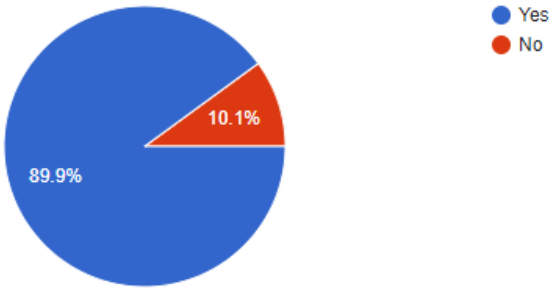
1."What is the ICDS program?" Yes: 149 responses No: 40 responses



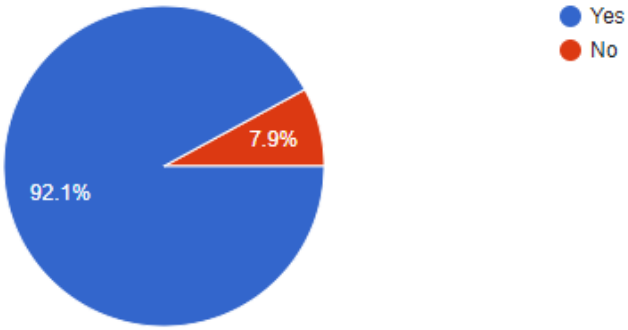
2. "What are the six components of ICDS?" Yes: 141 responses No: 48 responses



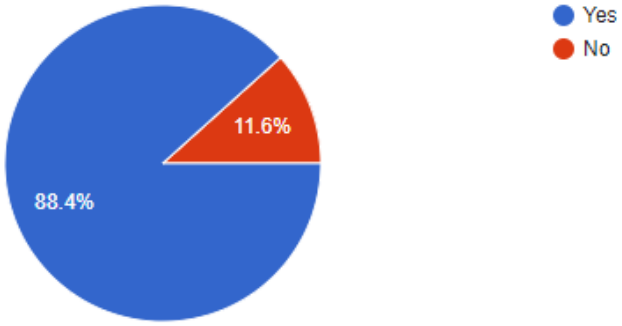
3. "How to prepare the growth chart?" Yes: 170 responses No: 29 responses



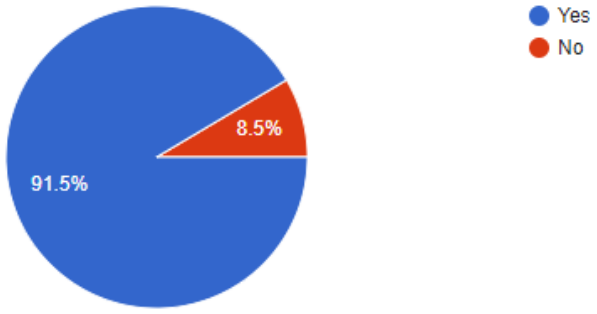
4. **"What is the management of SAM Child?"** Yes: 174 responses No: 15 responses



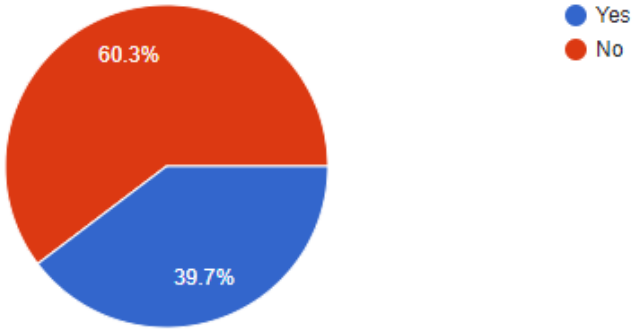
5. **"What is the referral process to NRC?"** Yes: 167 responses No: 22 responses



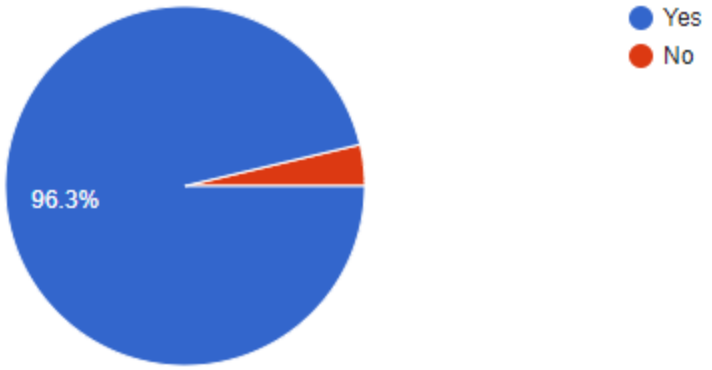
6. **Management of MAM Children**: Yes: 172 (91.49%) No: 16 (8.51%)



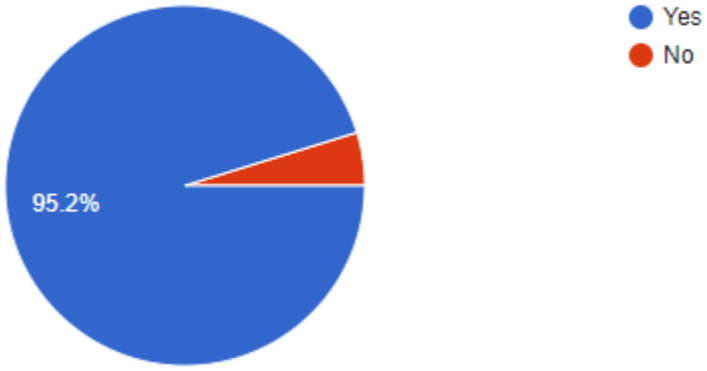
7. Meaning of 2SD and Others in the Growth Chart: Yes: 114 (60.64%) No: 75 (39.87%)



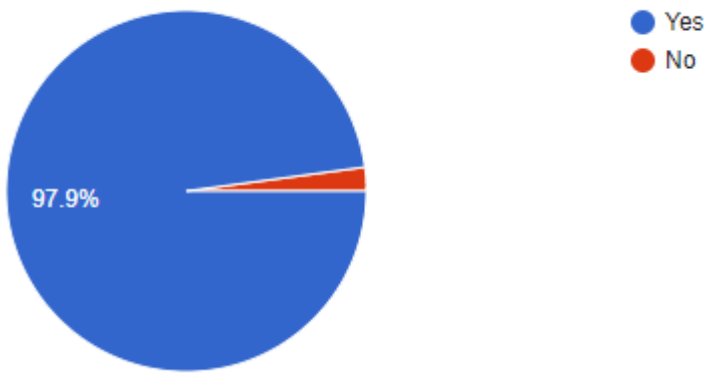
8. Implication of Red Category in the Growth Chart: Yes: 182 (96.81%) No: 7 (3.72%)



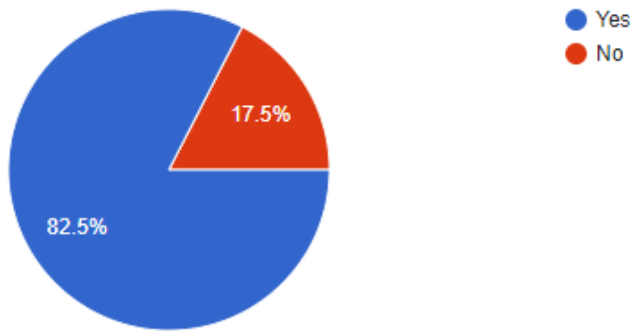
9. Implication of Yellow Category in the Growth Chart: Yes: 180 (95.74%) No: 9 (4.79%)



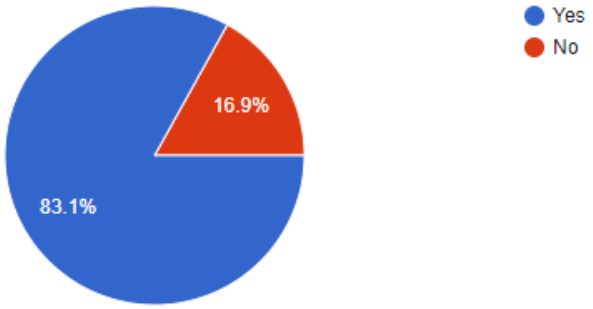
10. Implication of Green Category in the Growth Chart: Yes: 185 (98.41%) No: 4 (2.13%)



11. Importance of Supplementary Nutrition under ICDS: Yes: 156 (82.98%) No: 33 (17.57%)

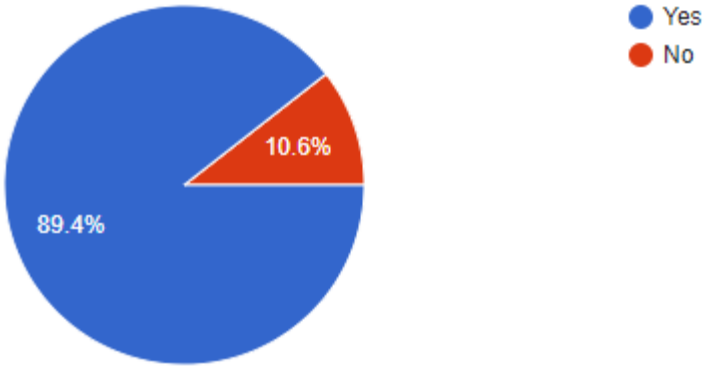


12. Sources of Supplementary Nutrition under ICDS: Yes: 157 (83.54%) No: 32 (17.02%)

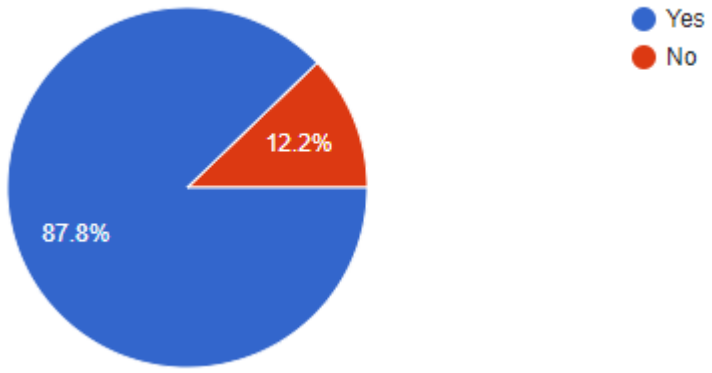


13. Role of AWWs in Providing Supplementary Nutrition under ICDS: Yes: 169 (89.89%)

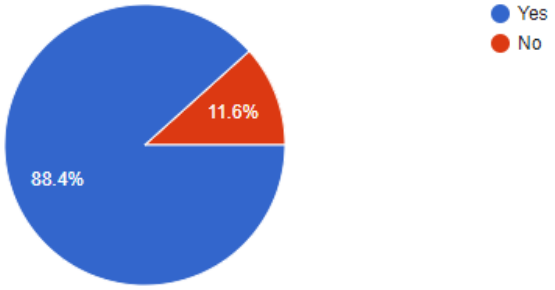
No: 20 (10.64%)



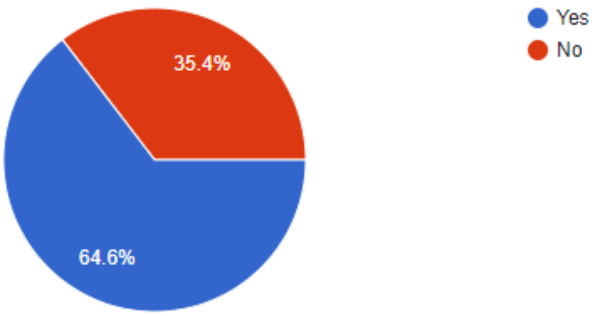
14. Benefits of Early Childhood Education under ICDS: Yes: 166 (88.30%) No: 23 (12.23%)



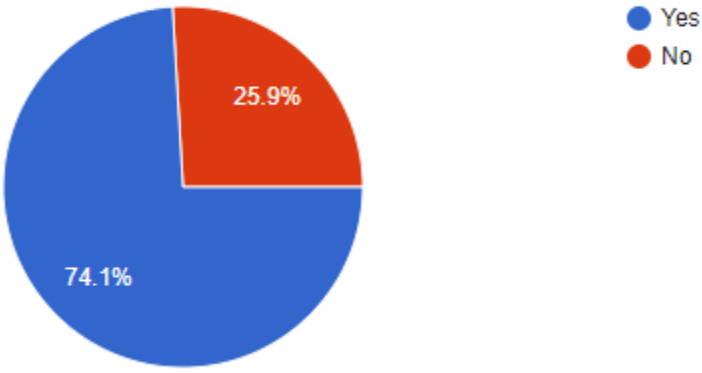
15. Role of AWWs in Promoting Early Childhood Education under ICDS: Yes: 167 (67.02%) No: 22 (33.51%)



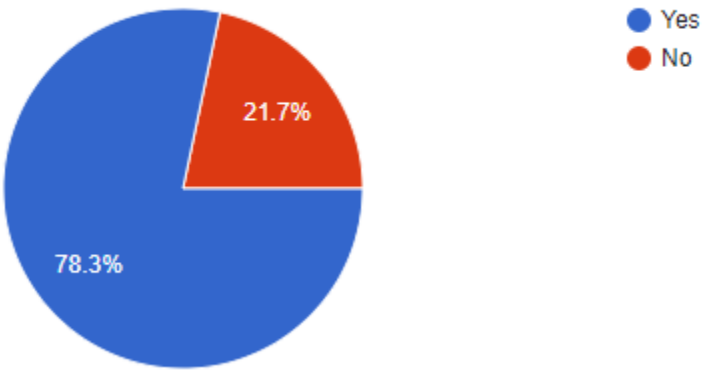
16. Assessment of Nutrition Status of Beneficiaries under ICDS by AWWs: Yes: 122 (64.89%) No: 67 (35.64%)



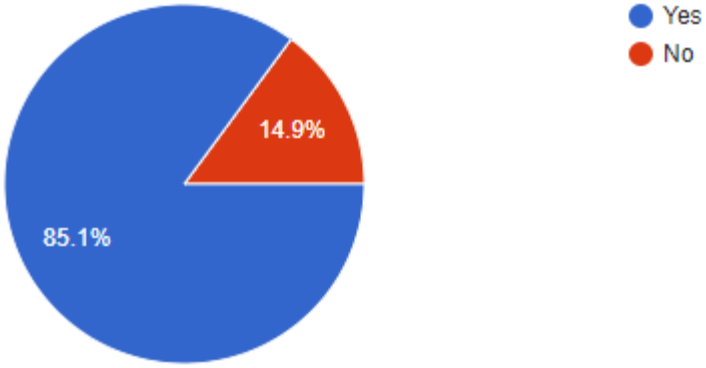
17. Benefits of Nutrition and Health Education under ICDS: Yes: 140 (74.47%) No: 49 (26.06%)



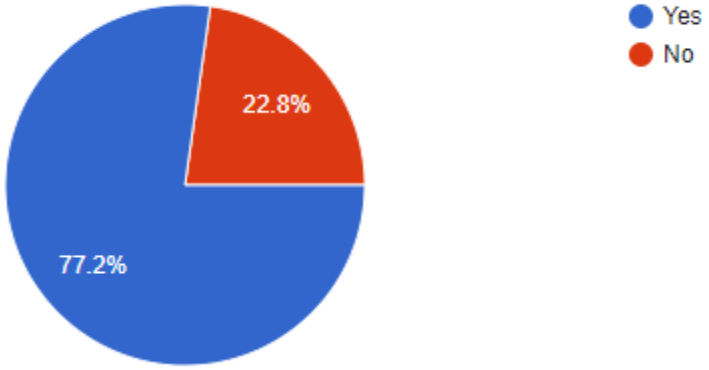
18. Ensuring Quality of Supplementary Nutrition by AWWs under ICDS: Yes: 148 (78.72%) No: 41 (21.81%)



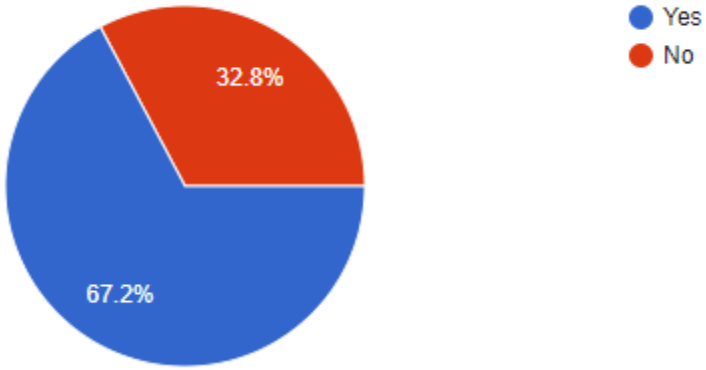
19. Role of AWWs in Promoting Immunization under ICDS: Yes: 160 (85.11%) No: 29 (15.43%)



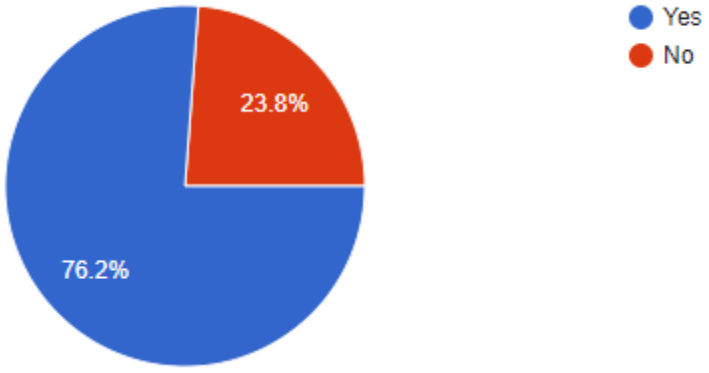
20. Ensuring Effective Referral Services by AWWs under ICDS: Yes: 146 (77.78%) No: 43 (22.96%)



21. Common Challenges Faced by AWWs in Implementing ICDS Services: Yes: 127 (67.55%) No: 62 (32.98%)



22. Best Practices for Monitoring and Evaluation of ICDS Services: Yes: 144 (76.60%) No: 45 (23.94%)



23. Time Since Last Training:

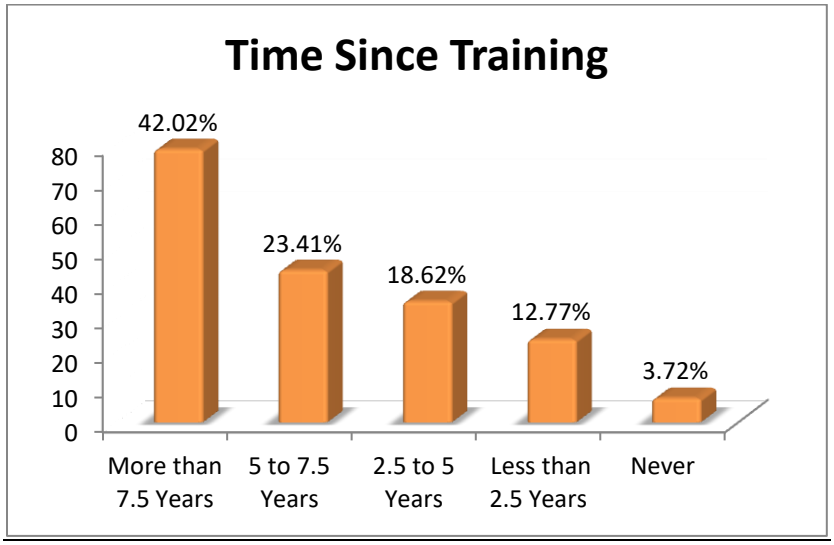
More than 7.5 Years: 79 (42.02%)

5 to 7.5 Years: 44 (23.41%)

2.5 to 5 Years: 35 (18.62%)

Less than 2.5 Years: 24 (12.77%)

Never: 7 (3.72%)



The results of the given dataset provide insights into the respondents' knowledge and understanding of various aspects of the ICDS (Integrated Child Development Services) program. The majority of respondents are familiar with the program, its components, growth chart preparation, management of SAM and MAM in children, and the referral process to the NRC. They also have a good understanding of the implications of different categories in the growth chart and the importance of supplementary nutrition under ICDS.

Respondents also demonstrated knowledge of the role of AWWs (Anganwadi Workers) in providing supplementary nutrition, promoting early childhood education, promoting immunization, and ensuring effective referral services under ICDS. However, there is a lower percentage of respondents who are aware of the role of AWWs in assessing the nutrition status of beneficiaries, ensuring the quality of supplementary nutrition, and addressing common challenges faced by AWWs in implementing ICDS services.

The majority of respondents are familiar with the benefits of nutrition and health education under ICDS and best practices for monitoring and evaluation of ICDS services. In terms of training, a significant portion of respondents (42.02%) had their last training more than 7.5 years ago, while 23.41% had training between 5 to 7.5 years ago, and 18.62% had training between 2.5 to 5 years ago. Only 12.77% of respondents had training less than 2.5 years ago, and 3.72% have never received training.

These results suggest that while there is a good level of knowledge and understanding of the ICDS program among respondents, there is room for improvement in certain areas, such as the role of AWWs in specific tasks and the need for more frequent and updated training. This information can be used to inform future education and awareness campaigns, as well as to identify areas where additional training and support may be needed for AWWs.

Conclusion

The survey results indicate that the majority of participants demonstrated good knowledge and understanding of the management of MAM children, growth chart interpretation, the importance of supplementary nutrition, and the roles of AWWs in various aspects of ICDS. However, there were some areas where participants displayed relatively lower awareness, such as the meaning of 2SD in the growth chart and the role of AWWs in promoting early childhood education. These findings highlight the need for targeted training and awareness programs to address the knowledge gaps and improve the overall effectiveness of ICDS services.

Recommendations:

Based on the survey findings, the following recommendations are suggested:

I. Conduct regular training sessions to update AWWs on the latest information and guidelines related to ICDS.

II. Strengthen the focus on growth chart interpretation, including explaining the significance of 2SD and other indicators.

III. Enhance awareness regarding the benefits of early childhood education and the role of AWWs in promoting it.

IV. Emphasize the importance of effective referral services and provide AWWs with the necessary tools and resources to ensure seamless coordination.

V. Foster knowledge exchange and sharing of best practices among AWWs to improve monitoring and evaluation of ICDS services.

Limitations:

I. The survey sample may not be fully representative of the entire population.

II. The self-reported responses may be subject to recall or response bias.

III. The survey did not explore the reasons behind respondents' lack of knowledge in certain areas.

Reference

1. Ministry of Women and Child Development. Integrated Child Development Services (ICDS) Scheme [Internet]. [cited 2023 Mar 22]. Available from: https://wcd.nic.in/schemes/integrated-child-development-services-icds-scheme

2. Ranjan R, Das M, Das S. Knowledge of anganwadi workers about integrated child development services: a study in Sitamarhi district of Bihar, India. Int J Res Med Sci 2019;7:4194-9.

3. Nair N, Gupta N, Arora N, Panda A. Nutrition Gardens: A Sustainable Model for Food Security and Diversity. ORF Issue Brief No. 363 [Internet]. 2021 [cited 2023 Mar 22]. Available from: https://www.orfonline.org/research/nutrition-gardens-a-sustainable-model-for-food-security-and-diversity-67933/

4. Dey D, Dey A. Anganwadi workers: on the forefront in the fight against malnutrition in India. J Family Med Prim Care. 2018;7(3):542-548. doi:10.4103/jfmpc.jfmpc_115_18

5. Patel A, Prakash AA, Das PK, Nayak S, Suchitra MR, Pani SP. Anganwadi Workers: Potential Soldiers Against Malnutrition. J Trop Pediatr. 2021;67(4):fmab028. doi: 10.1093/tropej/fmab028

6. Baxi R, Joshi R, Vadgama M, et al. Accelerating Actions Against Malnutrition: A Call for Strengthening the Capacity of Health and Nutrition Program Staff in Devbhumi Dwarka, Gujarat. Cureus. 2020;12(12):e10853. doi:10.7759/cureus.10853

7. Indian Journal of Health Sciences [Internet]. [cited 2023 Mar 22]. Available from: https://www.ijournalhs.org/temp/indianjhealthsci103241-3691028_101510.pdf.

8. Joshi K. Knowledge of Anganwadi workers and their problems in Rural ICDS block. J Paediatr Nurs Sci. 2018;1(1):8-14.

9. J Nutr Res [Internet]. 2019 [cited 2023 Mar 22];2:30-35. Available from: https://sciresol.s3.us-east-2.amazonaws.com/srs-j/jnutres/Volume-2/11-Article%20Text-30-1-10-20190425.pdf

10. Ministry of Women and Child Development. ICDS Mission - Broad Framework [Internet]. [cited 2023 Mar 22]. Available from: https://wcd.nic.in/sites/default/files/IcdsMission%20-%20Broad%20Framework.pdf

ANNEXURE

Annexure 1 CONSENT FORM

Title: Assessment of Knowledge Level among Anganwadi Workers regarding Nutrition-Specific Services of Integrated Child Development Services in Mandu Block of Jharkhand and Harichandanpur, Rangeilunda & Chatrapur Blocks of Odisha.

Interviewer: Dr. Sarvesh Gupta

Introduction: You are being invited to participate in a research study that aims to assess the level of knowledge among Anganwadi Workers regarding nutrition-specific services of Integrated Child Development Services. Your participation in this study is voluntary, and you may choose not to participate without any negative consequences.

Procedures: If you decide to participate in this study, you will be asked to complete a questionnaire related to your knowledge of nutrition-specific services offered by Integrated Child Development Services. The questionnaire will take approximately 30 minutes to complete.

Risks and Benefits: There are no known risks associated with participating in this study. However, you may experience some discomfort or inconvenience while completing the questionnaire. There are no direct benefits to you as a participant. However, your participation will contribute to the knowledge and understanding of the nutrition-specific services provided by Integrated Child Development Services.

Confidentiality: Your participation in this study will be kept confidential to the extent permitted by law. Your responses will be anonymous, and your personal information will not be shared

with anyone outside the research team. The results of the study will be presented in aggregate form and will not identify individual participants.

Voluntary Participation: Your participation in this study is entirely voluntary, and you may choose not to participate without any negative consequences. If you decide to participate, you may withdraw your consent and discontinue your participation at any time without any penalty or loss of benefits to which you are otherwise entitled.

Contact Information: If you have any questions, concerns or complaints about this study or your participation, you may contact the interviewer at 8310407613.

By signing below, you confirm that you have read and understood the information provided in this consent form and voluntarily agree to participate in this research study.

Participant Signature: _____

Date: _____

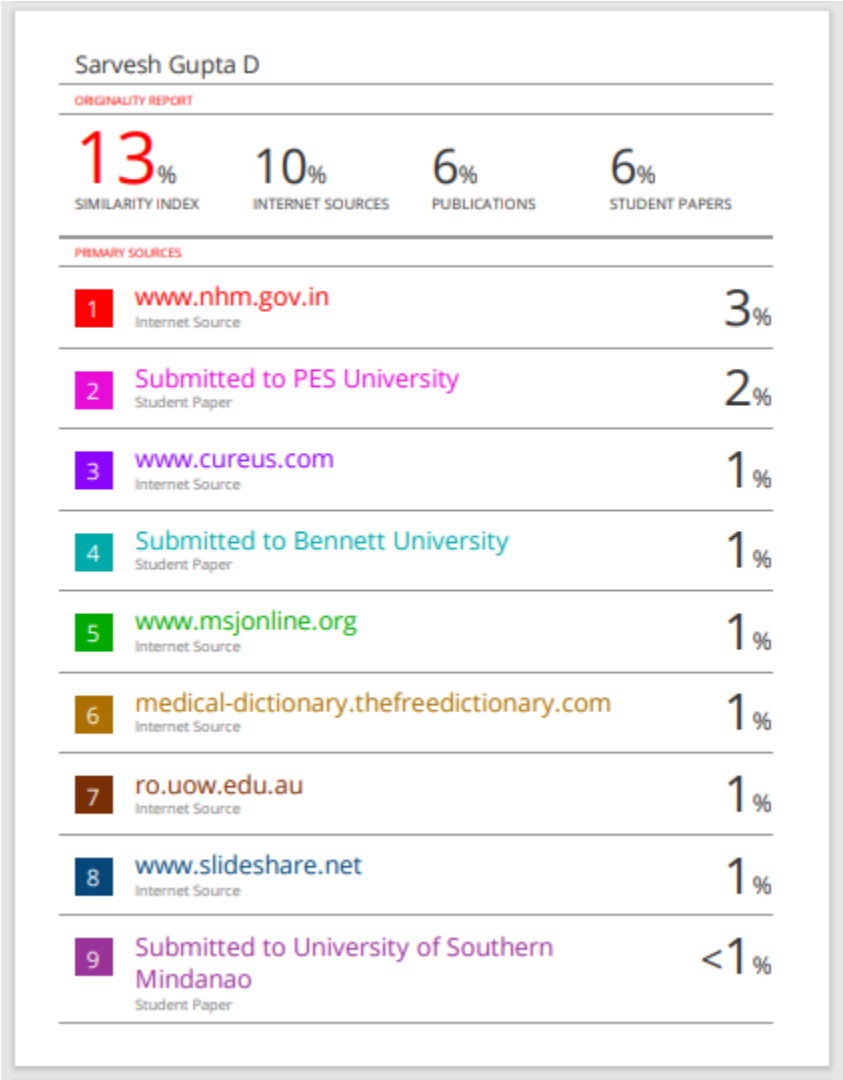
Annexure 2- QUESTIONNAIRE

	A. Demographics of Anganwadi Worker (AWW)	
1	Age (years)	
2	Class Passed *[1=Illiterate ; 2=1-9 class; 3=10-12 Class ;4= Graduate; 5= Post graduate]*	
3	Marital Status:*[1 = Married; 2 = Widowed; 3 = Divorced, Abandoned or Separated; 4 = Unmarried; 5 = Other (specify); 9 = Unclear]*	
4	Religion *[1 = Hindu; 2 = Muslim; 3 = Christian; 4 = Other (specify); 9 = Unclear]*	
5	Caste group (if applicable): *[1 = SC; 2 = ST; 3 = OBC; 4 = Caste Hindu; 5 = Other (specify);* *9 = Unclear; NA = Not applicable]*	
6	How long have you worked as an AWW? (completed years) *Investigator: If less than one year, write 0)*	
7	How long have you worked in this centre? (completed years) *Investigator: If less than one year, write 0)*	
8	Do you reside in the village in which the AWC is located?*[1 = Yes; 2 = No; 9 = Unclear]*	
9	Do you find it difficult to commute to the anganwadi? *[1 = Yes; 2 = No; 3 = Sometimes; 4 = NA (resides in AWC village)]*	

S. No.	Question	YES	NO
1)	What is the ICDS program?		
2)	What are the six components of ICDS?		
3)	How to prepare the growth chart?		
4)	What is the management of SAM Child?		
5)	What is the referral process to NRC?		
6)	What is the management of MAM children?		
7)	What is the meaning of 2SD and others in the growth chart?		
8)	What does the red category imply in the growth chart?		
9)	What does the Yellow category imply in the growth chart?		
10)	What does the Green category imply in the growth chart?		
11)	What is the importance of supplementary nutrition under ICDS?		
12)	What are the sources of supplementary nutrition under ICDS?		
13)	What is the role of AWWs in providing supplementary nutrition under ICDS?		
14)	What are the benefits of early childhood education under ICDS?		
15)	What is the role of AWWs in promoting early childhood education under ICDS?		

16)	How can AWWs assess the nutrition status of beneficiaries under ICDS?		
17)	What are the benefits of nutrition and health education under ICDS?		
18)	How can AWWs ensure the quality of supplementary nutrition provided to beneficiaries under ICDS?		
19)	What is the role of AWWs in promoting immunization under ICDS?		
20)	How can AWWs ensure effective referral services under ICDS?		
21)	What are the common challenges faced by AWWs in implementing ICDS services?		
22)	What are the best practices for monitoring and evaluation of ICDS services?		
23)	What was the last time since your training? *[1 = <2.5 yrs; 2 = 2.5-5yrs; 3 = 5-7.5yrs; 4 = >7.5yrs]*		

Annexure- 3 Plagiarism Check



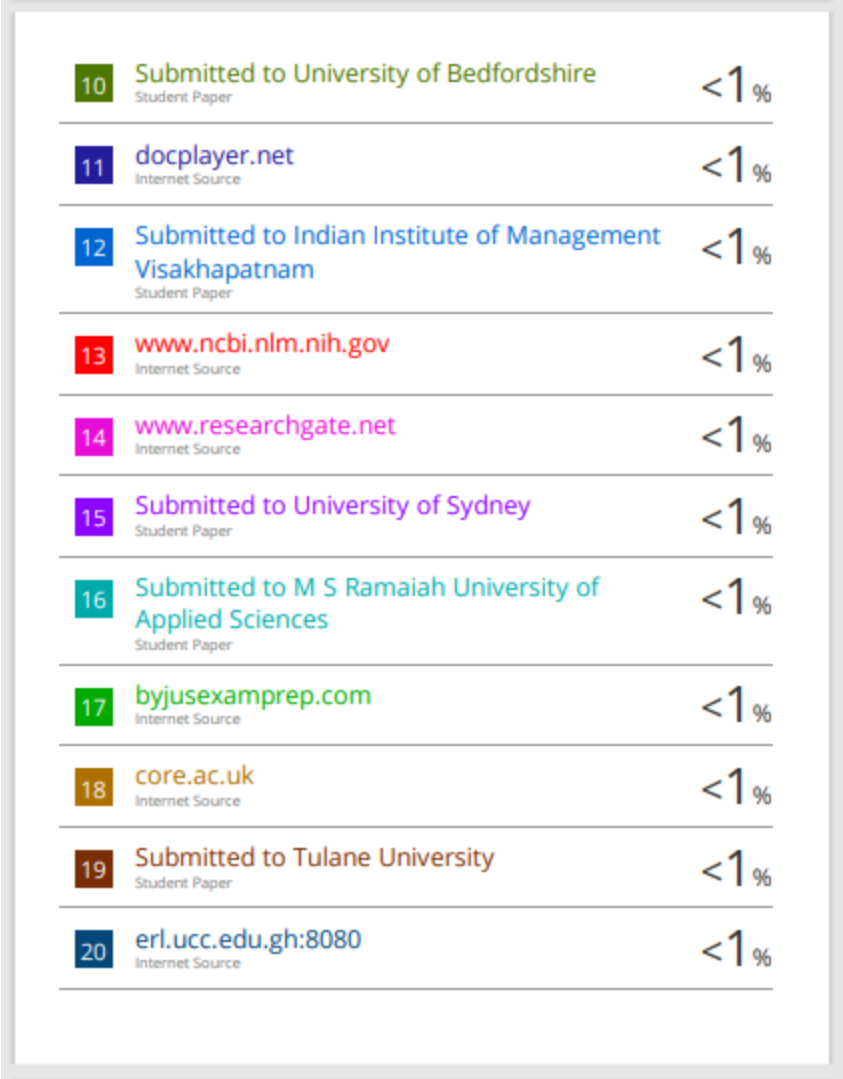
Sarvesh Gupta D

ORIGINALITY REPORT

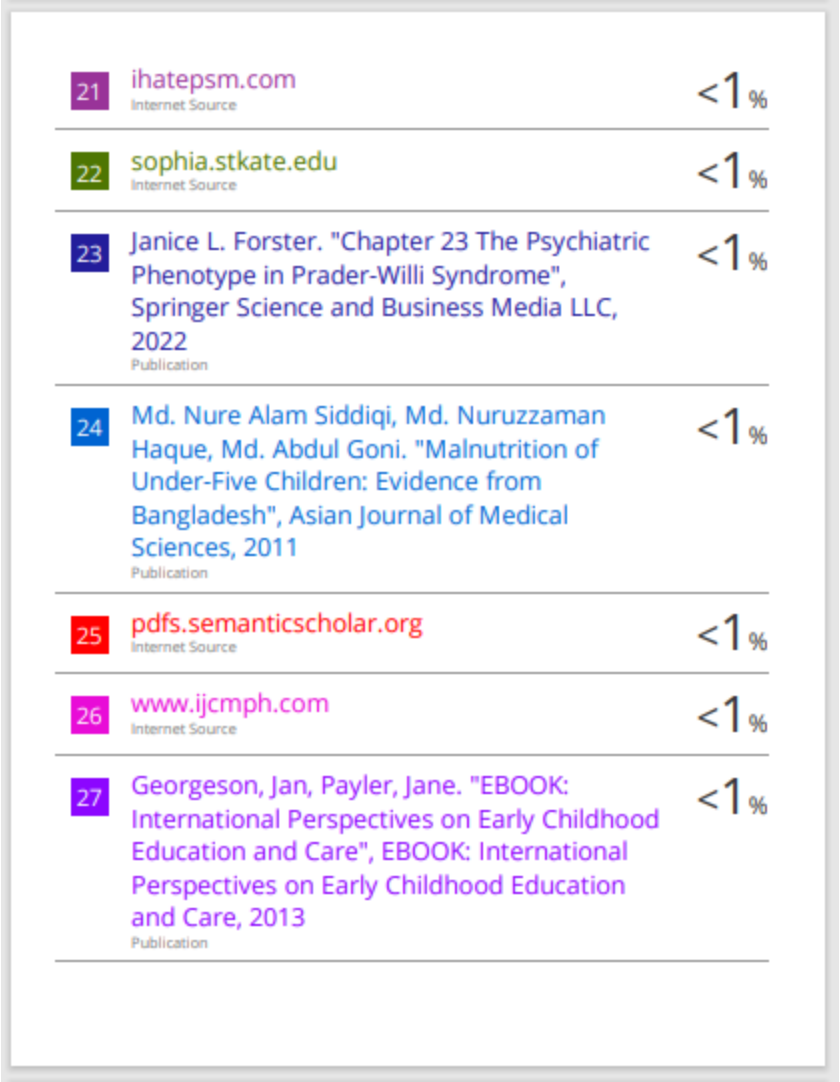
13%	10%	6%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.nhm.gov.in Internet Source	3%
2	Submitted to PES University Student Paper	2%
3	www.cureus.com Internet Source	1%
4	Submitted to Bennett University Student Paper	1%
5	www.msjonline.org Internet Source	1%
6	medical-dictionary.thefreedictionary.com Internet Source	1%
7	ro.uow.edu.au Internet Source	1%
8	www.slideshare.net Internet Source	1%
9	Submitted to University of Southern Mindanao Student Paper	<1%



10	Submitted to University of Bedfordshire Student Paper	<1%
11	docplayer.net Internet Source	<1%
12	Submitted to Indian Institute of Management Visakhapatnam Student Paper	<1%
13	www.ncbi.nlm.nih.gov Internet Source	<1%
14	www.researchgate.net Internet Source	<1%
15	Submitted to University of Sydney Student Paper	<1%
16	Submitted to M S Ramaiah University of Applied Sciences Student Paper	<1%
17	byjusexamprep.com Internet Source	<1%
18	core.ac.uk Internet Source	<1%
19	Submitted to Tulane University Student Paper	<1%
20	erl.ucc.edu.gh:8080 Internet Source	<1%



21	ihatepsm.com Internet Source	<1%
22	sophia.stkate.edu Internet Source	<1%
23	Janice L. Forster. "Chapter 23 The Psychiatric Phenotype in Prader-Willi Syndrome", Springer Science and Business Media LLC, 2022 Publication	<1%
24	Md. Nure Alam Siddiqi, Md. Nuruzzaman Haque, Md. Abdul Goni. "Malnutrition of Under-Five Children: Evidence from Bangladesh", Asian Journal of Medical Sciences, 2011 Publication	<1%
25	pdfs.semanticscholar.org Internet Source	<1%
26	www.ijcmph.com Internet Source	<1%
27	Georgeson, Jan, Payler, Jane. "EBOOK: International Perspectives on Early Childhood Education and Care", EBOOK: International Perspectives on Early Childhood Education and Care, 2013 Publication	<1%

28	Mrunal Mehta, Somen Saha, Apurvakumar Pandya, Mayur B Wanjari, Deepak Saxena. "Accelerating Actions Against Malnutrition: A Call for Strengthening the Capacity of Health and Nutrition Program Staff in Devbhumi Dwarka, Gujarat", Cureus, 2022 Publication	<1%

Exclude quotes Off
Exclude matches Off
Exclude bibliography On