Factors Associated With Iron and Folic Acid Supplementation Adherence Among Adolescent Girls In A Hilly Rural Municipality of Nepal

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OUTLINE

BACKGROUND

OBJECTIVES

METHODOLOGY

FINDINGS

CONCLUSION

PUBLIC HEALTH IMPLICATIONS

BACKGROUND: Burden and Consequences

- Iron Deficiency Anemia (IDA) is a major public health issue affecting **adolescents and women.**
- Adolescence → ↑ iron needs (growth + menarche)

Poor Cognition & Academic Performance

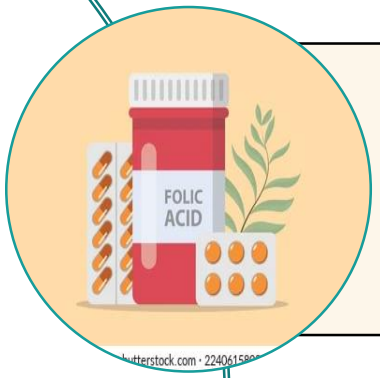
Reduced Physical Capacity

Future Reproductive Risks

BACKGROUND: Nepal Scenario

Nepal Scenario

- Adolescents = 20.5% of Population.
- **39% of girls (15-19) are anemic** (highest among reproductive age group).



Weekly Iron & Folic Acid Supplementation (WIFAS) Program since 2015/16

School-based Preventive Strategy

BACKGROUND

Key Issues

Adherence to supplementation

- Declines over time
- Side effects, Forgetfulness, low awareness/motivation

Influencing Factors

- Personal (Knowledge, perception)
- Social (teachers, peers, family)
- Structural (Supply, supervision)

Research Gap

- ➢Focus mostly on IFA adherence among pregnant women.
- ➢Limited evidence on adherence & its determinants among this age group

OBJECTIVES

To estimate adherence to WIFAS

To identify factors associated with adherence

METHODOLOGY

Study Design & Settings

Study design: School-based cross-sectional study
Period: Nov–Dec 2024
Location: Ganyapdhura Rural Municipality, Dadeldhura
Study population:
Adolescent girls (10–19 years)
Grades 6–10
Receiving WIFAS ≥7 weeks

Sampling frame: → 12 public schools implementing WIFAS

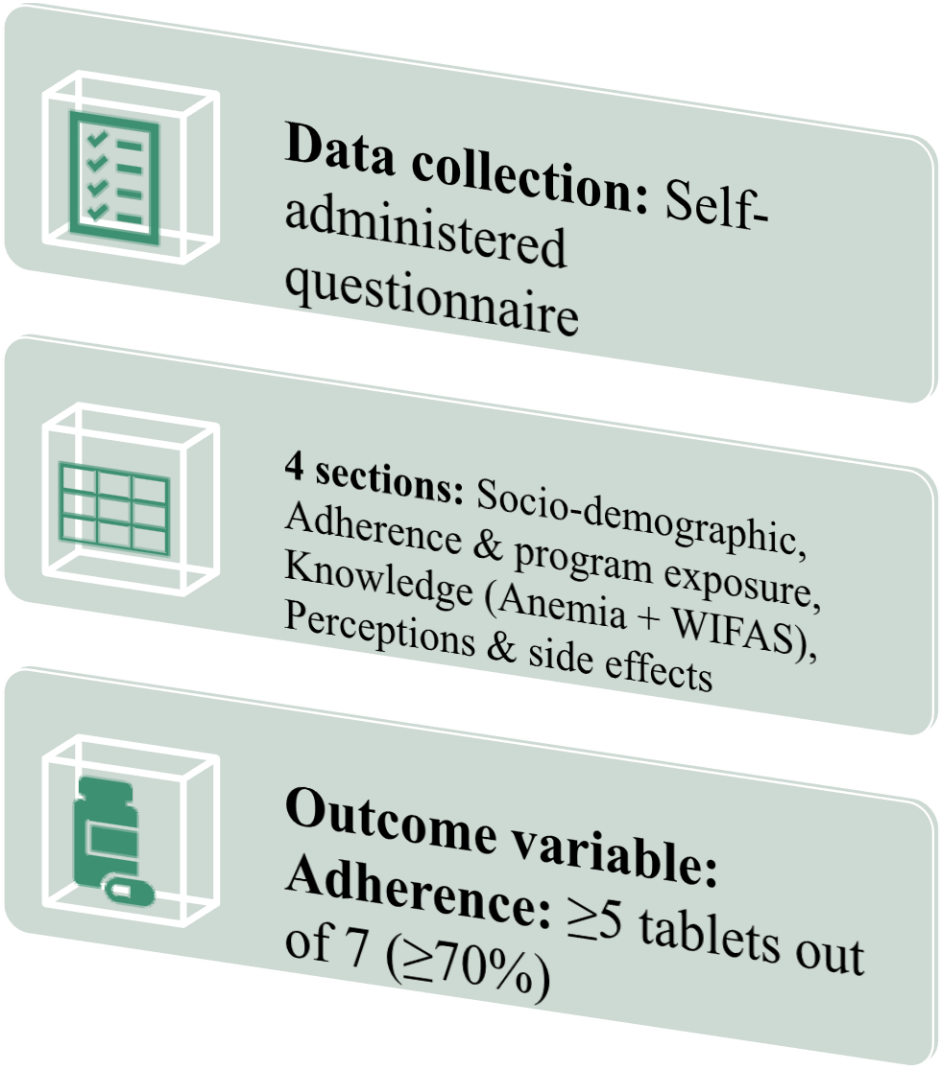
Sample size: Calculated using Cochran's formula → Final sample: **383** (design effect + non-response adjusted)

Sampling technique: → Cluster + proportional allocation

Simple random sampling within schools

Selected: 365 adolescent girls

Data Collection, Variables & Analysis



Key independent variables:

- Socio-demographic (age, ethnicity, parental education)
- Knowledge (anemia & WIFAS)
- Program factors (teacher supervision, family support, water availability)

Analysis:

- Descriptive statistics (mean, %, frequency), Chi-square (bivariate)
- Logistic regression (AOR, 95% CI); Significance: $p < 0.05$

Quality & ethics:

- Pre-tested tool, Cronbach's $\alpha = 0.71$
- Confidential, voluntary participation

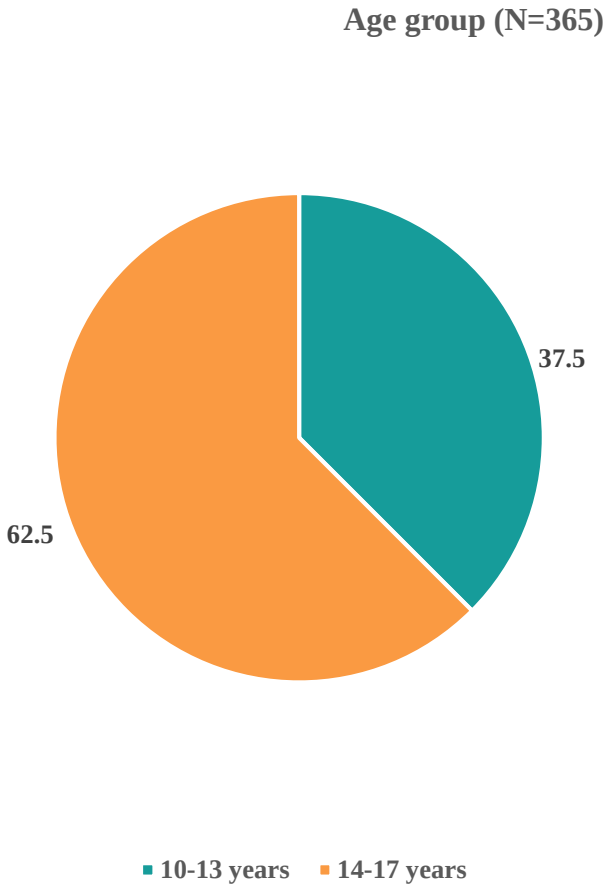
FINDINGS: OVERVIEW

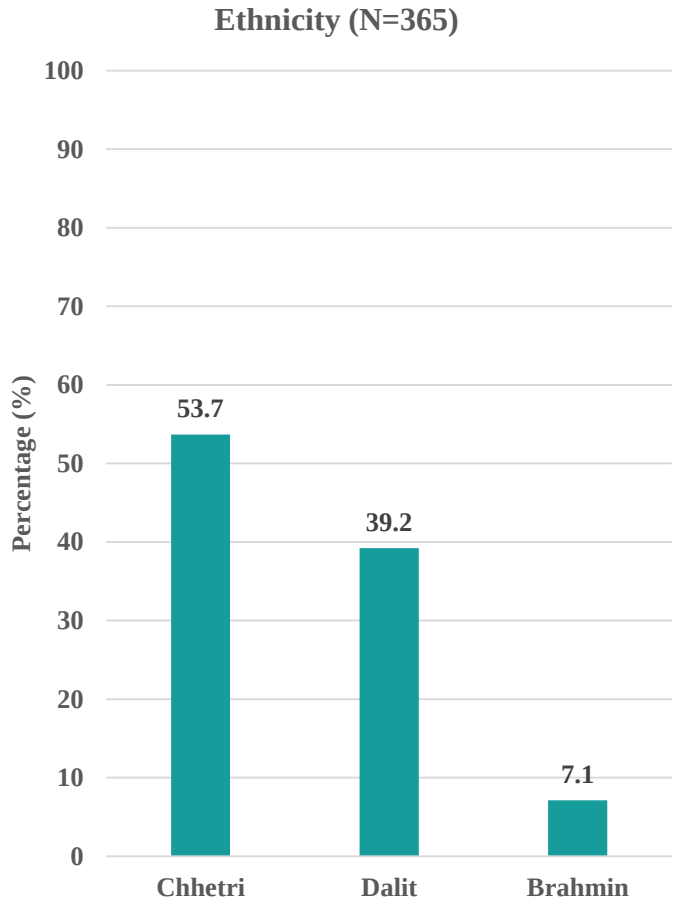
SOCIO-DEMOGRAPHIC FINDINGS

- **Mean age**: 14.1 years (SD ±1.55).
- Majority had **regular school attendance (82.2%)**
- **Nuclear families:** 60%

Predominant livelihood:

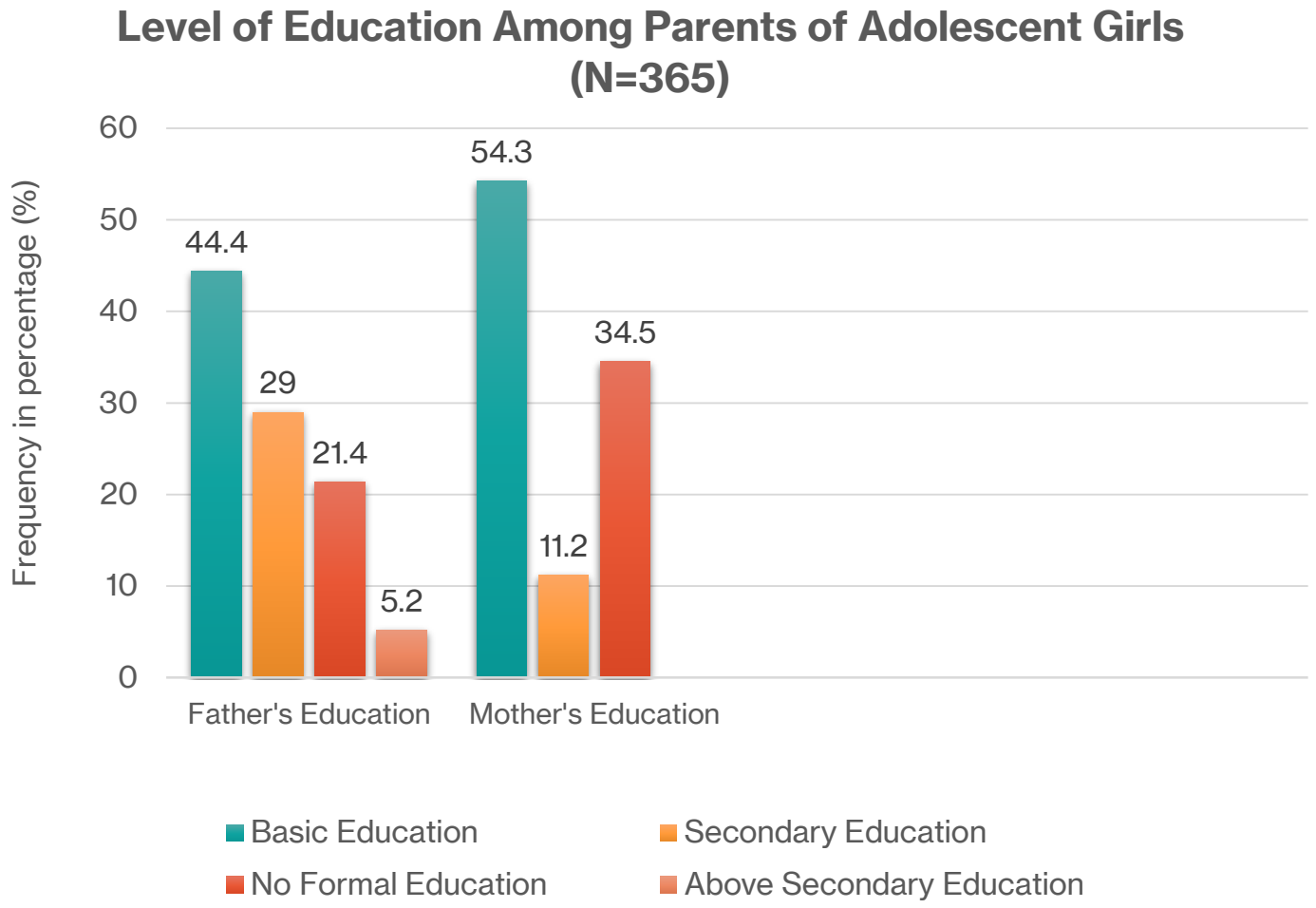
- Fathers: **Foreign employment (47.2%)**
- Mothers: Agriculture (65.3%)





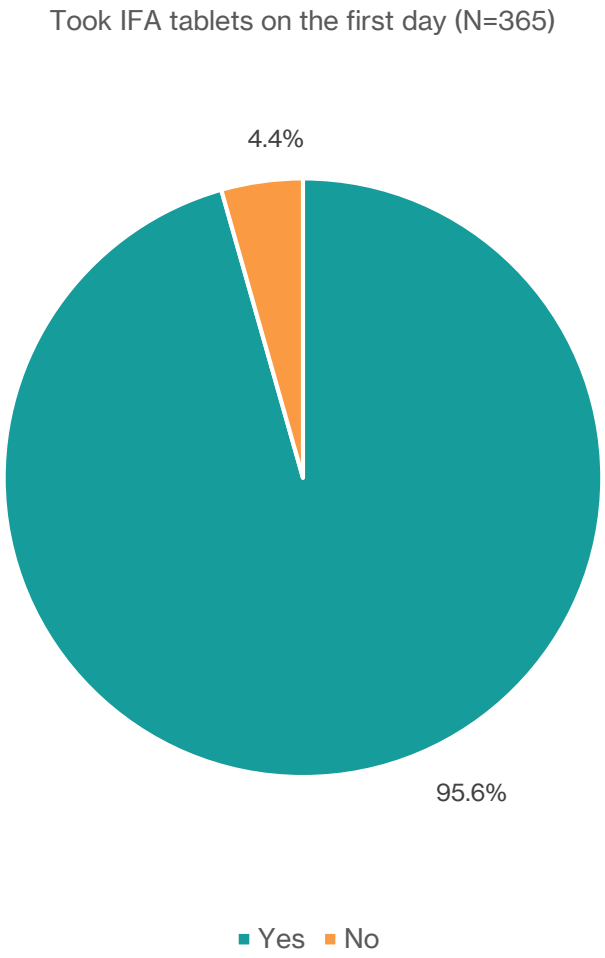
SOCIO-DEMOGRAPHIC FINDINGS

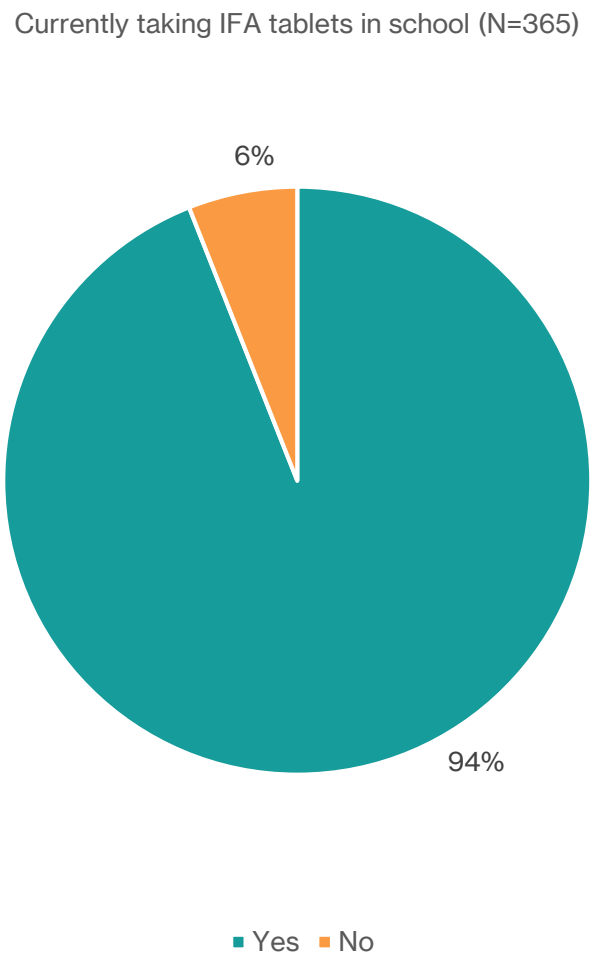
Parental Education



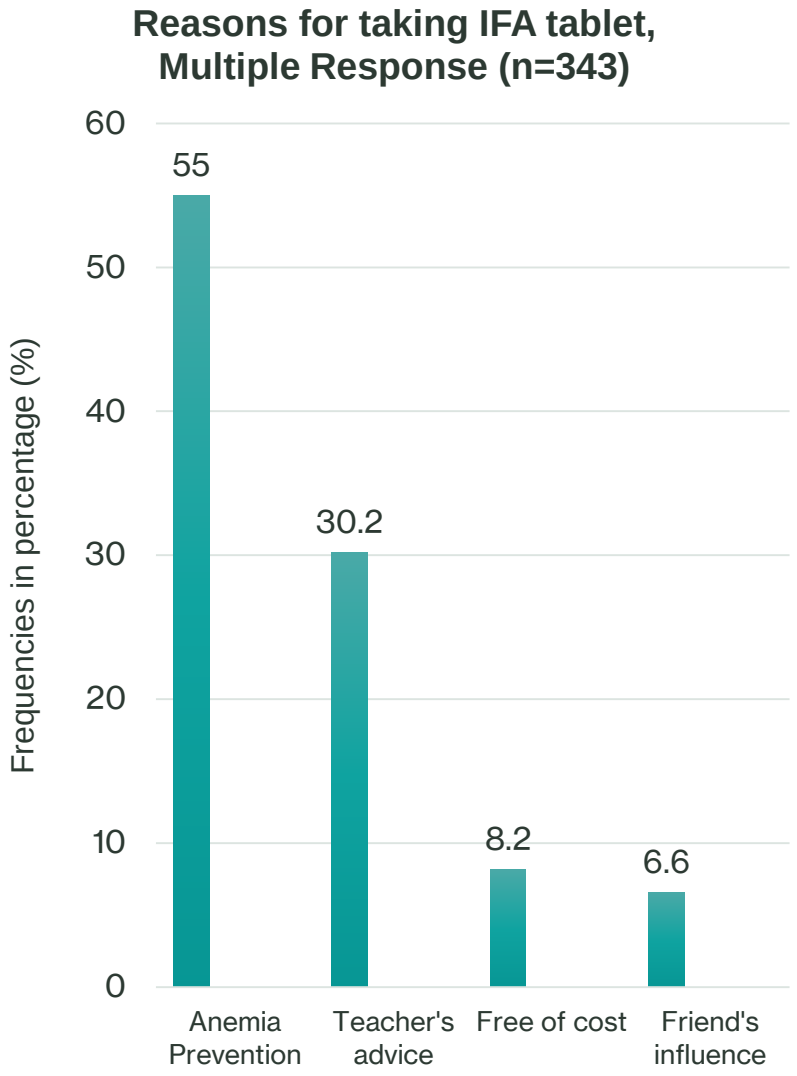
IFA Coverage among adolescent girls

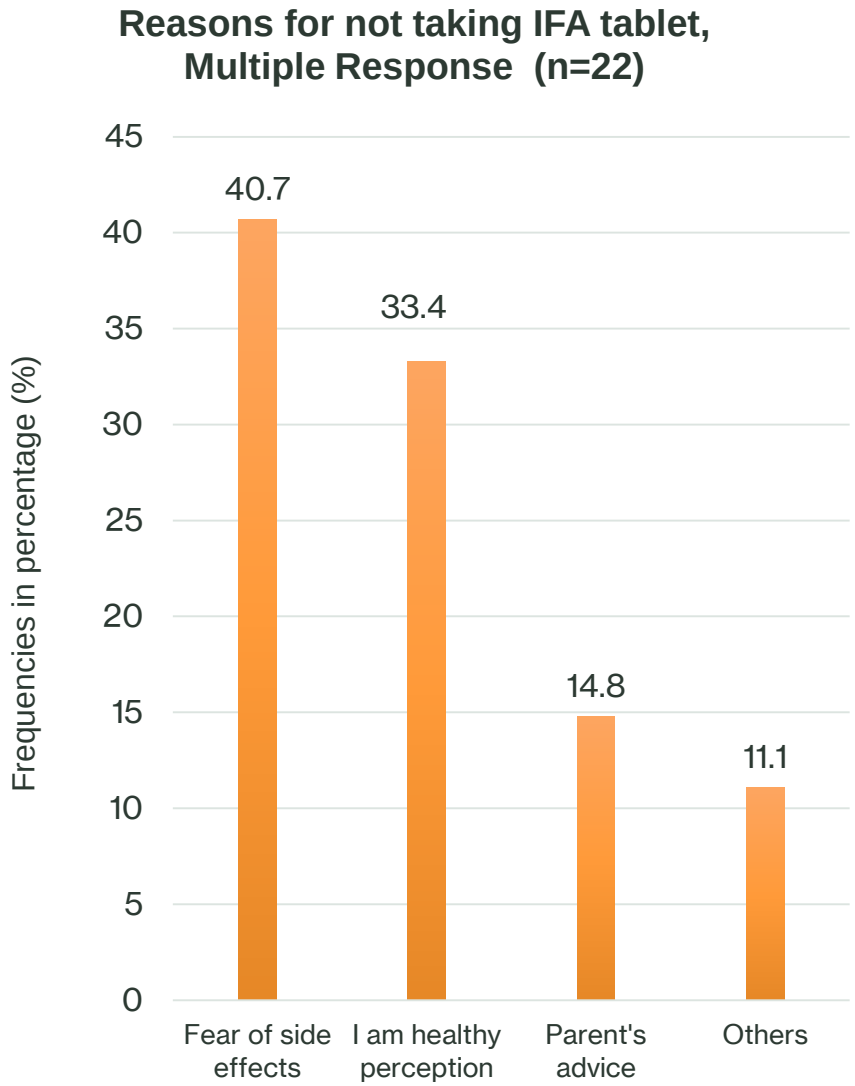
Note: Shows higher coverage





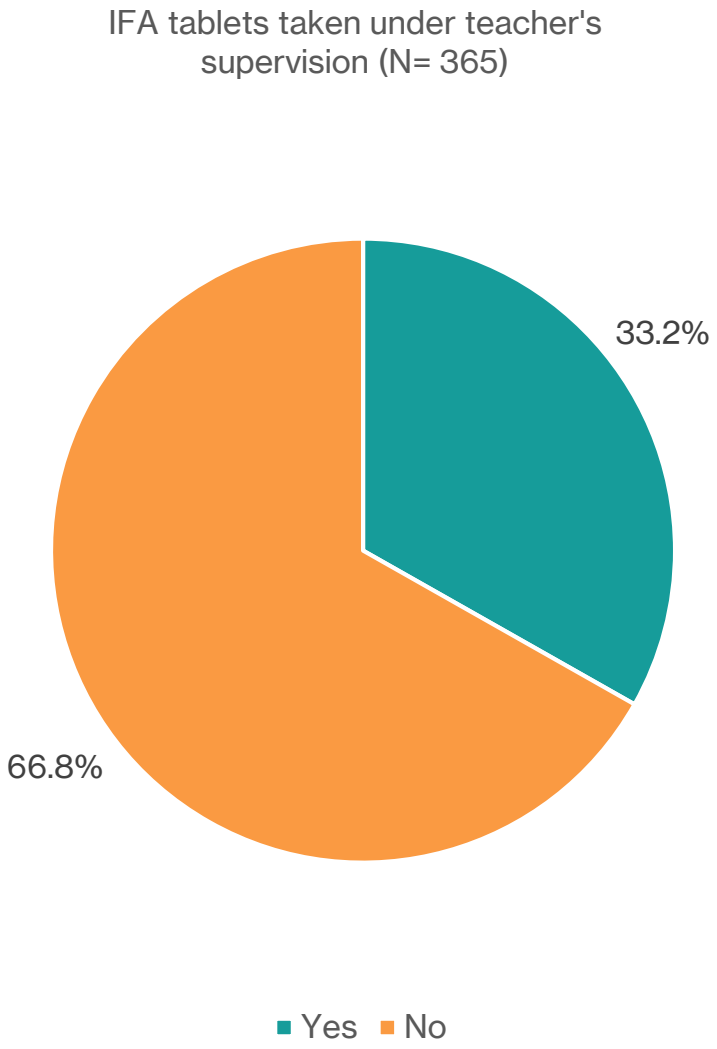
Motivation & Barriers to IFA adherence

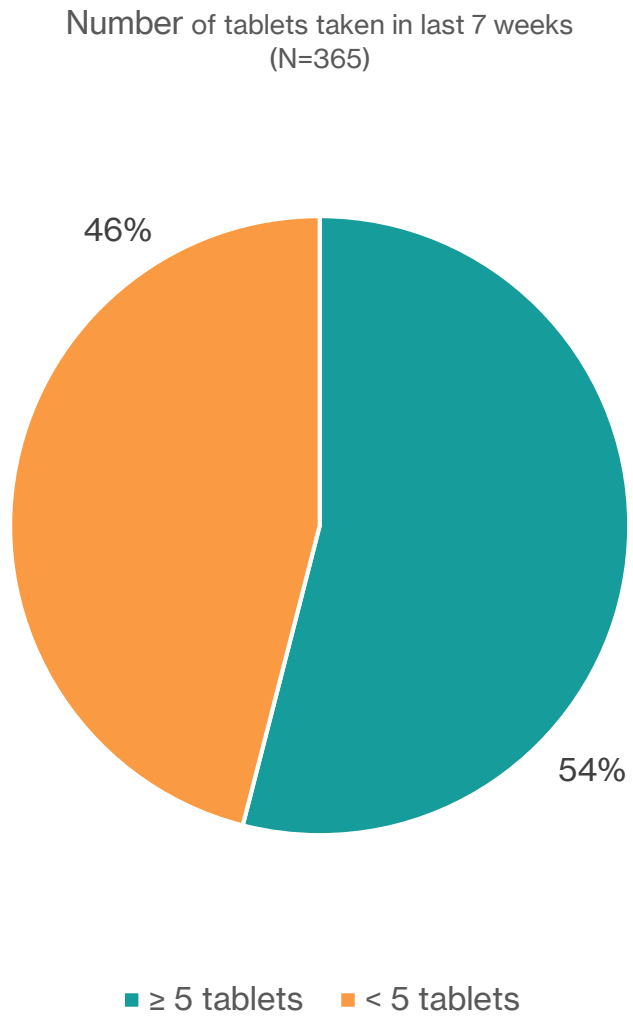




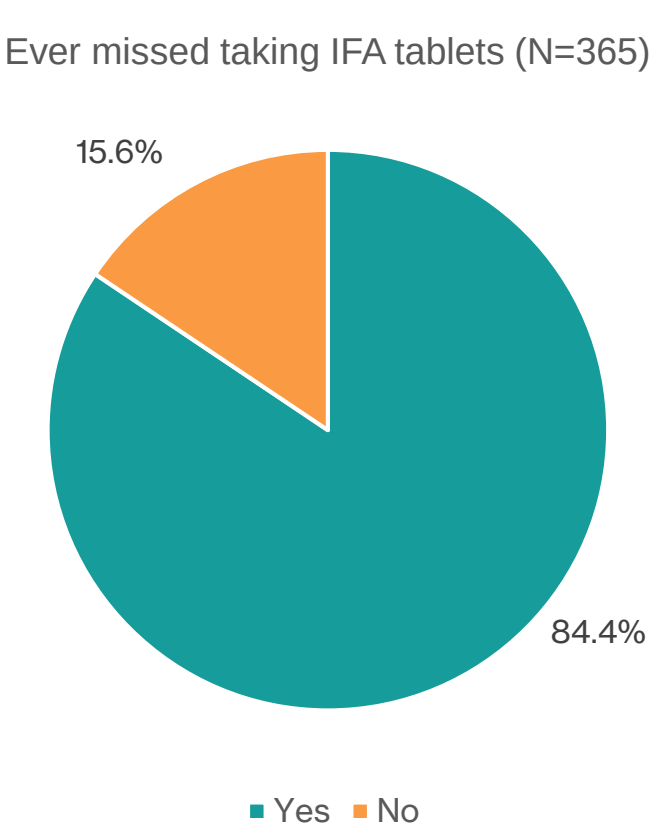
IFA Adherence among Adolescent Girls

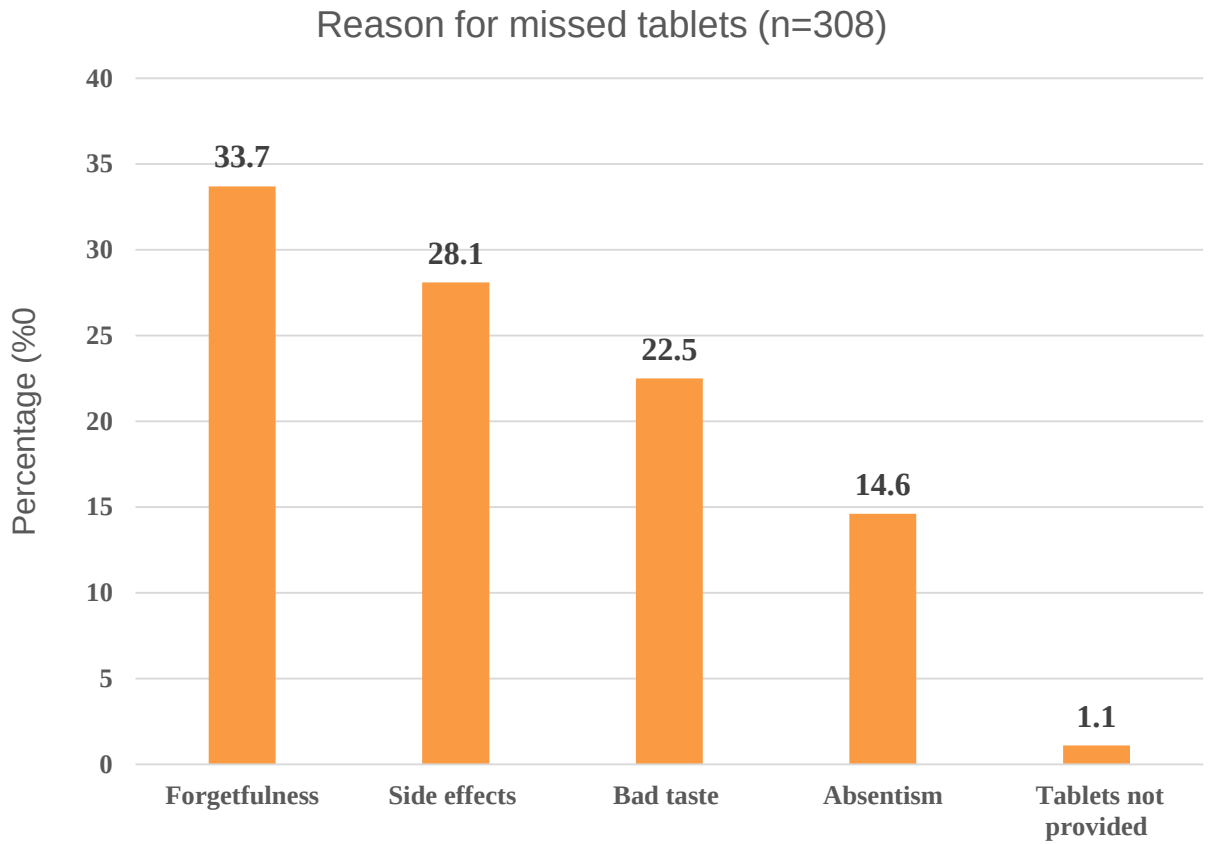
Note: Despite the higher coverage adherence was low



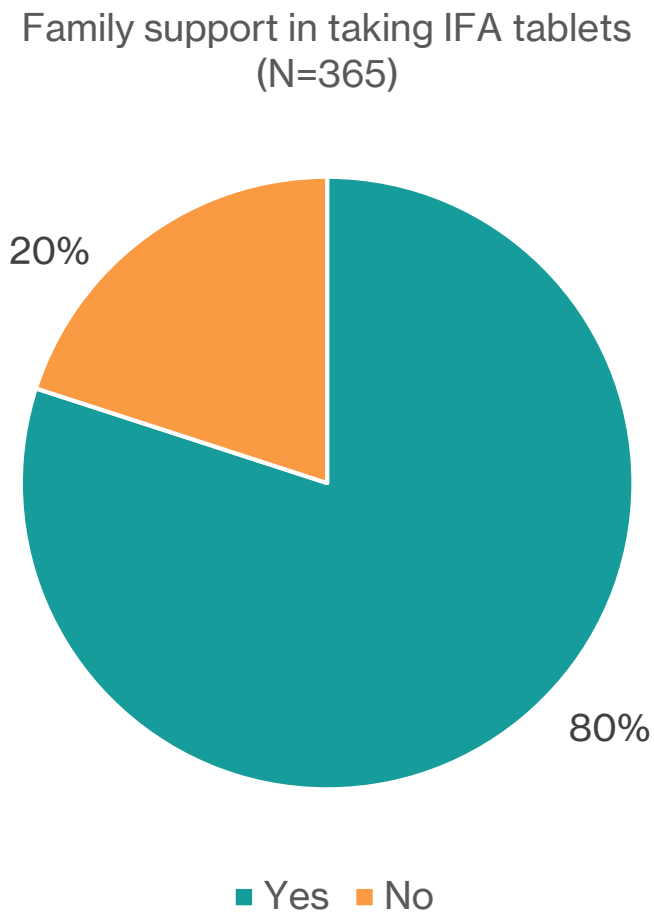


Barriers to IFA Adherence

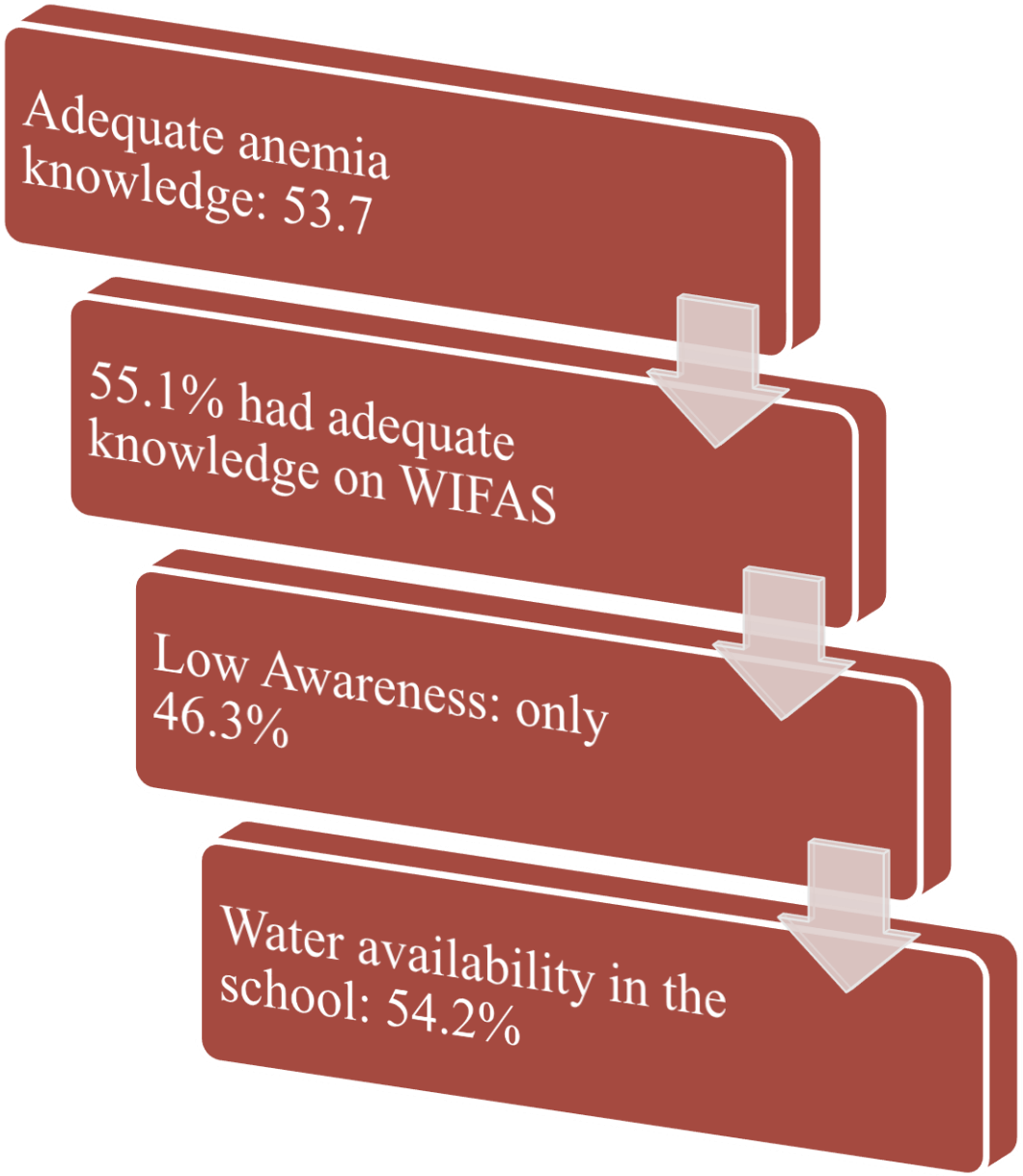




SUPPORTIVE ENVIRONMENT



Knowledge & Environmental Influence in Adherence to IFA



Multivariate Regression Results

Reference Categories

Parental education: No formal education

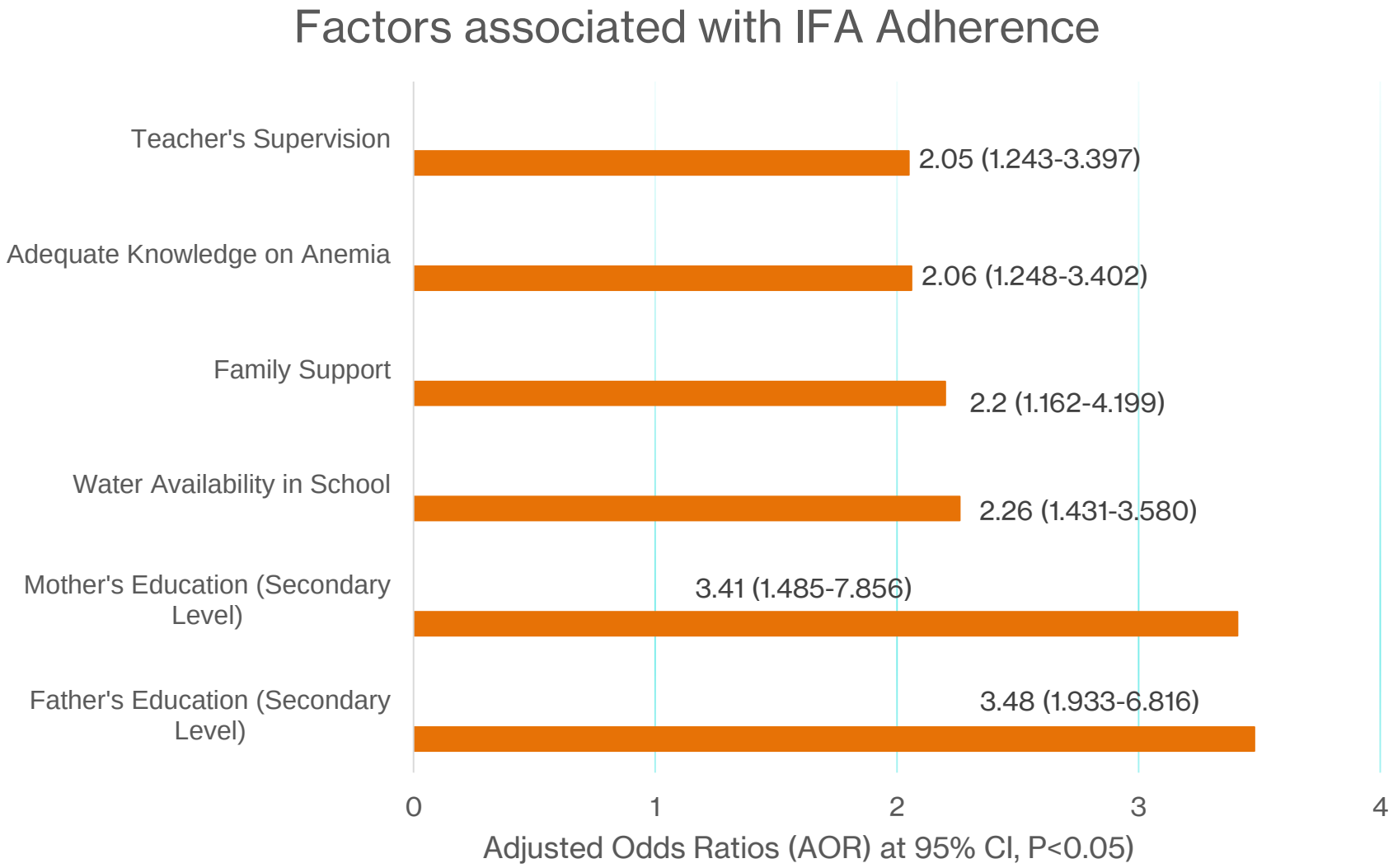
Knowledge: Inadequate

Teacher’s Supervision: No

Family support: No

Water availability: No

Note: Confidence Intervals were drawn at 95%, p<0.05.



CONCLUSION

Adherence to WIFAS was moderate (54%) despite high coverage.

Significant disparities observed:
Lower adherence among Dalit and Chhetri groups
Lower adherence with low parental education.

Knowledge gaps persist:
Poor anemia knowledge: 46.3%
Poor WIFAS knowledge: 44.9%

Programmatic barriers:
Low teacher supervision (33%)
Side effects (nausea, stomach pain)
Missed doses common

PUBLIC HEALTH IMPLICATIONS

Strengthen	School-based WIFAS monitoring
Improve	Teacher supervision mechanisms
Promote	Family awareness on IFA importance
Ensure	**Availability of safe drinking water in schools**
Integrate	Nutrition education into school curriculum

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THANK YOU

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