

Impact of small fish powder on nutrition in children aged 6-24 months: a trial study

Submission date 29/01/2025	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 14/02/2025	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 03/02/2025	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Children are considered a vulnerable population due to poverty in the region and comparatively lower availability of food and nutrition. This study aimed to determine whether a supplementary ready-to-use fish powder (RUFPP) can improve the nutritional outcomes of children aged 6-24 months.

Who can participate?

Healthy children aged 6–18 months

What does the study involve?

The experimental group received 5 g of fish powder daily in their complementary food for 16 weeks. The control group was asked to maintain their regular complementary food.

What are the possible benefits and risks of participating?

The main benefits of this study were that the supplement was free of charge for the whole family, and the researchers also shared the recommended guidelines with them for use in the future. Another possible benefit was that the supplement may improve children's nutritional status, and there was no possible risk of harm to the participants.

Where is the study run from?

Noakhali Science and Technology University (Bangladesh)

When is the study starting and how long is it expected to run for?

August 2021 to January 2022

Who is funding the study?

WorldFish Bangladesh

Who is the main contact?

Dr Abdullah-Al Mamun, mamun@nstu.edu.bd, mamun_au22@yahoo.com

Contact information

Type(s)

Public, Scientific, Principal investigator

Contact name

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Additional identifiers**Protocol serial number**

NSTU/SCI/EC/2021/73

Study information**Scientific Title**

Effects of pelagic small fish powder on nutritional outcomes among children aged 6-24 months: a quasi-experimental trial

Acronym

RUFP

Study objectives

The inclusion of pelagic small fish powder in the diet of children aged 6-24 months will improve their nutritional outcomes, including growth and micronutrient status, compared to children not receiving the intervention.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 26/08/2021, Noakhali Science and Technology University Ethical Committee (NSTUEC) (Sonapur, Noakhali, 3814, Bangladesh; +88 (0)2334496522; registrar@office.nstu.edu.bd), ref: NSTU/SCI/EC/2021/73

Study design

Two-armed quasi-experimental study

Primary study design

Interventional

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Nutrition in children aged 6-24 months

Interventions

The experimental group (n = 30) received 5 g of RUFP composite fish powder made from anchovy (Olua, *Coilia dussumieri*), sardine (Chapila, *Sardinella longiceps*), and faissa (*Thryssa*, *Thryssa dussumieri*) daily in their complementary food at a 40:30:30 ratio for 16 weeks. The control group (n = 30) was asked to maintain regular complementary food.

Intervention Type

Supplement

Primary outcome(s)

Growth and nutritional status assessed using anthropometric measurements, including weight-for-age (WAZ), length-for-age (LAZ), and weight-for-length (WLZ) z-scores, at the beginning and end of the 116-day intervention

Key secondary outcome(s)

Micronutrient status evaluated using biochemical biomarkers such as hemoglobin levels, ferritin, vitamin B12, and retinol at the beginning and end of the 116-day intervention

Completion date

31/01/2022

Eligibility**Key inclusion criteria**

1. Healthy children aged 6–18 months
2. Caregivers willing to allow their children to participate and consume fish powder-based cooked food
3. Informed parental consent provided

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

No

Age group

Child

Lower age limit

6 months

Upper age limit

18 months

Sex

All

Total final enrolment

60

Key exclusion criteria

1. Children who were unhealthy
2. Who have intolerance or unwillingness to consume fish powder
3. Children aged less than 6 months or more than 18 months

Date of first enrolment

01/10/2021

Date of final enrolment

04/10/2021

Locations**Countries of recruitment**

Bangladesh

Study participating centre

North Shilkhali Union of Teknaf sub-district (Upazila)

Cox's Bazar

Bangladesh

4700

Study participating centre

Nidania Union of Ukhiya sub-district (Upazila)

Cox's Bazar

Bangladesh

4700

Sponsor information**Organisation**

WorldFish Bangladesh

Funder(s)

Funder type

Other

Funder Name

WorldFish Bangladesh

Results and Publications

Individual participant data (IPD) sharing plan

The dataset will be shared with the journal where it will be published and the dataset without participants will be provided upon any request from the readers. The name and email address of the investigator/body who should be contacted for access to the dataset is Md Shahedul Islam (shahedul0810@student.nstu.edu.bd).

IPD sharing plan summary

Available on request