ISRCTN34731061 https://doi.org/10.1186/ISRCTN34731061

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

Registration date
14/02/2025

Overall study status
Completed

Last Edited
03/02/2025

Condition category
Nutritional, Metabolic, Endocrine

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] 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 (RUFP) 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

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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

Primary study design
Interventional

Study design
Two-armed quasi-experimental study

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