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Improving preventive health compliance among rural children through behavioral nudges

Submission date 08/05/2026	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [_] Results [_] Individual participant data [X] Record updated in last year
Registration date 11/05/2026	**Overall study status** Completed	
Last Edited 11/05/2026	**Condition category** Eye Diseases	

Plain English summary of protocol

Background and study aims
Poor vision and uncorrected refractive errors remain common among children in rural China. Although many children receive initial vision screening and eyeglasses, follow-up compliance after eyeglass provision is often low. Delayed or missed follow-up visits reduce the long-term effectiveness of vision care interventions.
Behavioral economics research suggests that non-compliance may result from factors such as forgetfulness, present bias, and delayed decision-making rather than lack of access alone. Simple behavioral nudges, including reminders and small incentives, may help families prioritize preventive health behaviors.
This study aims to evaluate whether reminder phone calls and reminder-plus-subsidy interventions can improve children's follow-up compliance for vision care services in rural China.

Who can participate?
Children aged between 8 and 15 years old from rural northwestern China who previously attended participating vision centers and whose caregivers can be contacted by phone.

What does the study involve?
Participants are randomly assigned to one of three groups.
Children in the control group receive a routine phone call asking about current eyeglass use, without reminders or incentives.
Children in the reminder group receive a phone reminder encouraging caregivers to schedule a follow-up examination.
Children in the reminder plus subsidy group receive the same reminder, together with information that replacement eyeglasses will be subsidized if new glasses are clinically required.
Researchers then track whether children return for follow-up care within two weeks and within two months after the intervention.

What are the possible benefits and risks of participating?
Potential benefits include increased awareness of children's vision health needs and improved access to timely follow-up vision care.

The intervention itself involves only phone communication and information provision. Risks are minimal and primarily related to the handling of personal information. All data are anonymized and securely stored to protect participant privacy.

Where is the study run from?
The study is conducted in rural counties in northwestern China in collaboration with local vision care centers and coordinated by Shaanxi Normal University.

When is the study starting and how long is it expected to run for?
The study runs from October 2023 to March 2024.

Who is funding the study?
The study is independently initiated by the research team and is not supported by commercial funding.

Who is the main contact?
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Contact information

Type(s)
Principal investigator, Public, Scientific

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Additional identifiers

Study information

Scientific Title
Improving preventive health compliance through behavioral nudges: evidence from a vision care intervention in rural China

Acronym
VISION-NUDGE Trial

Study objectives

The primary objective of this study is to evaluate whether behavioral nudges can improve follow-up compliance with preventive vision care among rural children in China. Specifically, the study examines the effectiveness of two intervention strategies — reminder phone calls and reminder phone calls combined with eyeglass subsidies — in increasing the likelihood that children return for recommended follow-up vision examinations after an initial clinic visit.

The study further aims to compare the timing and magnitude of intervention effects across different follow-up periods, including short-term compliance (within two weeks) and longer-term compliance (within two months). In addition, the study explores whether intervention effectiveness differs across subgroups defined by gender, baseline vision severity, prior eyeglass ownership, educational stage, and geographic accessibility to health services.

More broadly, the study seeks to contribute to the literature on preventive health behavior and behavioral economics by examining how low-cost behavioral interventions may reduce non-compliance in resource-constrained rural settings.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 14/03/2025, Shaanxi Normal University Academic Committee (No. 620 West Chang'an Street, Chang'an District, Xi'an, Shaanxi Province, 710119, China; +86-029-85308047; jyxb@snnu.edu.cn), ref: GZK2025-142

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Active

Assignment
Parallel

Purpose
Treatment

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Vision care compliance

Interventions

This study is an individually randomized controlled trial (RCT) designed to evaluate whether behavioral nudges can improve follow-up compliance in preventive vision care among rural children.

Randomization was conducted at the individual level using Stata's random number generator based on the Vision Center's administrative records. Eligible students were randomly assigned in approximately equal proportions (1:1:1) to the reminder group, reminder-plus-subsidy group, or control group. The allocation sequence was generated centrally by the research team prior to intervention delivery. Intervention assignments were then implemented by trained project staff during caregiver phone calls. No sealed-envelope procedure was used.

Eligible participants are randomly assigned to one of three groups:
1. Control group
Caregivers receive a phone call asking about children's current eyeglass use and vision status. No reminder or financial incentive is provided.
2. Reminder group
Caregivers receive a behavioral reminder informing them that their child is approaching the recommended follow-up vision examination period and are encouraged to schedule a clinic visit.
3. Reminder plus subsidy group
Caregivers receive the same reminder as Group 2. In addition, they are informed that if the child requires replacement eyeglasses after examination, the cost of replacement glasses will be subsidized.

Intervention Type
Behavioural

Primary outcome(s)
1. Child attendance at a follow-up visit measured using clinic administrative records at 2 weeks after intervention

2. Child attendance at a follow-up visit measured using clinic administrative records at within 2 months after intervention

Key secondary outcome(s)
1. Timing of follow-up compliance (early compliance versus delayed compliance) measured using clinic administrative records at within 2 months after the intervention call

2. Heterogeneity of intervention effects by gender, baseline vision severity, prior eyeglass ownership, distance to clinic and educational stage measured using clinic administrative records at within 2 weeks and within 2 months after the intervention call

Completion date
30/04/2026

Eligibility

Key inclusion criteria
1. Rural primary or junior secondary school students who previously received vision care services at participating vision centers

2. Students whose previous clinic visit occurred approximately six months before intervention
3. Children with valid caregiver contact information
4. Students residing in rural counties in northwestern China

Participant type(s)
Carer, Patient

Healthy volunteers allowed
No

Age group
Child

Lower age limit
8 Years

Upper age limit
15 Years

Sex
All

Total final enrolment
274

Key exclusion criteria
1. Participants whose caregivers could not be reached by telephone after repeated attempts.
2. Participants lacking sufficient clinic record information for follow-up tracking.

Date of first enrolment
01/10/2025

Date of final enrolment
30/04/2026

Locations

Countries of recruitment
China

Study participating centre
Shaanxi Normal University
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Sponsor information

Organisation
Shaanxi Normal University

ROR
https://ror.org/0170z8493

Funder(s)

Funder type
Not defined

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available