ISRCTN14264710 https://doi.org/10.1186/ISRCTN14264710

Impact evaluation of rural village doctor training in Yunnan Province, China

Submission date
18/07/2017

Recruitment status
No longer recruiting

Registration date
21/07/2017

Overall study status
Completed

Last Edited
06/09/2023

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol

Background and study aims
Previous studies have uncovered significant deficits in the quality of primary care provided by village clinicians in rural China. A training programme for rural village doctors in Yunnan Province, China sponsored by the Red Cross Society of China and implemented by the Yunnan University of Traditional Chinese Medicine has been proposed to address these issues. This training programme provides broad-based training to rural village doctors in the province covering diagnoses and management of multiple high-priority diseases through a two-week programme involving classroom instruction and hands-on training. The aim of this study is to evaluate the impact of the training programme on the clinical practice of participating doctors through a randomized controlled trial.

Who can participate?
Participants in the study will be 330 randomly-chosen village doctors in the study area.

What does the study involve?
Following a baseline survey, participating doctors are randomly allocated to either a control group or to one of two treatment groups. The first treatment group are offered training from Yunnan starting in September 2017. The training is given free of charge and clinicians receive a subsidy for travel and accommodation during the training period. In May 2018, a second treatment group are offered participation in a modified version of the training adapted based on the results of the first phase. Participants are followed up approximately two months after the end of training to asses their knowledge and clinical management. In the control group, only data is collected during the study period (but they will receive training after completion of the trial).

What are the possible benefits and risks of participating?
Potential benefits to village clinicians participating in the programme include improved medical knowledge and increased income, though clinicians choosing to participate will forgo the income they would have earned had they not participated. Patients served by participating clinicians may benefit from improved care. There are no risks with participating.

Where is the study run from?
The study is being run by Peking University, Shaanxi Normal University, and the University of North Carolina at Chapel Hill and is taking place in Yunnan Province, China.

When is the study starting and how long is it expected to run for?
April 2017 to December 2018

Who is funding the study?
UCB (Belgium)

Who is the main contact?
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Contact information

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Protocol serial number
21100-4432-397-008

Study information

Scientific Title
Village doctor training and the quality of primary care in Yunnan province: A randomized controlled trial

Study objectives
Village clinician knowledge of appropriate clinical practice and the quality of primary care they provide will be higher with clinician participation in a training program than without. The null hypothesis is that there will be no difference in clinical practice or knowledge outcomes between treatment groups receiving training and the control group.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Peking University Institutional Review Board, 04/26/2017, ref: IRB00001052-1703

Study design
Multi-site randomized controlled trial

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Primary Care Quality

Interventions
The study involves 330 rural village clinicians in Yunnan Province, China. Following an initial baseline survey (conducted in July 2017), participating village clinicians are randomly allocated to a control group (in which only data collection will take place until completion of the trial – 110 clinicians) or one of two treatment groups:

Treatment Group 1 (110 clinicians): At the beginning of phase I (September 2017), village clinicians are offered an opportunity to participate in a training program sponsored by the Business Development Center of the Red Cross Society of China and implemented by Yunnan University of Traditional Chinese Medicine. The training covers diagnoses and management of multiple high-priority communicable and non-communicable diseases through a two-week programme involving classroom instruction and hands-on training.

Treatment Group 2 (110 clinicians): At the beginning of phase II (May 2018), village clinicians are offered an opportunity to participate in an “adapted version” of the training program. This

adapted training is a revised version of the training program (with revisions to content, scope, and structure) based on trial results from phase I.

Clinicians are randomly allocated to groups using a random number generator after baseline data collection (at the start of phase I). Participating village clinicians are unaware of random assignment and clinicians allocated to treatment groups only receive notification/offer of training. The control group receive training after trial completion.

Intervention Type
Behavioural

Primary outcome(s)
1. Clinician knowledge is measured using clinical vignettes presenting specific disease cases to providers at two months after the conclusion of each training programme
2. Practice of correct clinical management is measured using identical disease cases presented by unannounced standardized patients at two months after the conclusion of each training programme

Performance in vignettes and interactions with standardized patients are assessed in comparison to established national and international standards of care. Specific measures include adherence to pre-determined checklists of recommended questions and exams given each disease case, whether provided diagnoses are correct, partially correct, or incorrect and whether treatments are correct, partially correct, or incorrect (including drug prescriptions, referral, and patient instructions).

Key secondary outcome(s))
1. Clinician acceptance of offer to participate in training is measured using their response to the phone call of inviting them to attend the training at four weeks after baseline training
2. Clinician attendance at training sessions is measured using two outcomes during the training period. One is that whether clinican attends the training or not using clincian's registration into the training on the beginning day of the training. The other is share of sessions that clinician attends, which is measured using time sheets through the whole training.
3. Clinician scores on verbally-administered exams testing subject knowledge is measured using the subject matter test in the survey at baseline, midpoint and endpoint
4. Clinician patient load is measured using a questionnaire survey (specifically asking each clinican how amny patients visited them in the past month at baseline, midpoint and endpoint
5. patient perceptions of clinician quality is measured using household survey at midpoint survey (depending on funding to support a household survey)
6. Clinician income from medical services provided is measured using questionnaire (specifically asking about net revenue in the past year and the share of net revenue they take) at baseline, midpoint and endpoint

Completion date
30/12/2018

Eligibility

Key inclusion criteria
1. Aged 18 or older
2. Male or female
3. Employed as a village clinician in study area

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Total final enrolment
370

Key exclusion criteria
No exclusion criteria.

Date of first enrolment
20/07/2017

Date of final enrolment
15/08/2017

Locations

Countries of recruitment
China

Study participating centre
Peking University
School of Advanced Agriculture Sciences
No.5, Yiheyuan Road
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Sponsor information

Organisation

Peking University

ROR
https://ror.org/02v51f717

Funder(s)

Funder type
Not defined

Funder Name
UCB (Belgium)

Results and Publications

Individual participant data (IPD) sharing plan
The current data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		23/09/2020	06/09/2023	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes