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Supervised treatment for outpatients with schizophrenia (STOPS+)

Submission date	Recruitment status	[X] Prospectively registered
13/05/2019	No longer recruiting	[X] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
04/06/2019	Completed	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
12/09/2022	Mental and Behavioural Disorders	[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Schizophrenia is a severe long-term mental health condition. It causes a range of different psychological symptoms including hallucinations (hearing or seeing things that don't exist), delusions (unusual beliefs not based on reality), muddled thoughts based on hallucinations or delusions and changes in behaviour. Schizophrenia is a common cause of long-term disability in the 15-49-year-old group and whilst effective treatments are available, in developing countries around two-thirds of patients receive no treatment.

This lack of treatment, commonly known as the 'treatment gap' arises due to factors including poor treatment adherence, a lack of primary care involvement and poor access treatments. We have previously reported a new approach (Supervised Treatment in Out-Patients for Schizophrenia (STOPS)) that resulted in improved treatment adherence and functioning in a resource-poor setting in Khyber Pakhtunkhwa (KP), Pakistan. In this study we trained and supported relatives and family members to monitor medication taking, building on the success of a similar approach used for patients with tuberculosis.

We now aim to implement and evaluate a 'scaled-up' version of STOPS (STOPS+) which is based on the World Health Organisation mental health guidelines and maintain treatment adherence with the help of family members and text message reminders. We will work with primary care physicians and multipurpose primary are technicians to task shift care, under the supervision of mental health experts.

Who can participate?
Participants aged between 17-65 with a diagnosis of schizophrenia or schizoaffective disorder who are living within the catchment area of one of the participating Primary Healthcare Centres (PHCs).

What does the study involve?
24 PHCs in Peshawar, KP will be randomised to deliver either STOPS+ or Enhanced Treatment As Usual (ETAU). We will recruit 526 patients (263 in each arm) suffering from Schizophrenia or

schizoaffective disorder. Potential participants will be identified from PHCs and hospitals. Potentially eligible patients will be informed about the trial and consent taken for a screening assessment. Eligible patients will be provided with additional information about the trial.

Once informed consent has been taken the baseline assessment will be completed. At the intervention PHCs the family member will also be provided with information about the trial, consent taken and will receive training in how to supervise their family members' medication and will receive text message reminders for the first 3 months of participation.

Participants will be invited for a follow-up assessment at 6 and 12 months.

What are the possible benefits and risks of participating?
Those who take part may not receive any direct benefit, however the information we get from this study will help to improve access to medication and mental health treatment in primary care for people with schizophrenia.

Participants taking part in STOPS+ will continue to receive medication as they would have done otherwise and all medication provided follows current clinical guidelines. We are not investigating or testing any new medications. Medications provided at the Primary Healthcare Centre will be based on current guidelines.

For the intervention arm participants will be informed that the risk of disagreement can rarely cause a problem in relationships with supervising relative. Relatives will be trained for supervision so the risk will be minimised.

Participants will be informed that if there is any problem throughout participation the trained mental health professionals will be available for help. Participants will be informed of their right to withdraw from the study at any time if they find the supervision of treatment or any other part of the study is causing a problem.

Where is the study run from?
24 Primary Healthcare Centres in district Peshawar, Khyber Pakhtunkwa (KP).

When is the study starting and how long is it expected to run for?
May 2019 to June 2022

Who is funding the study?
Keele University has been awarded the funding for this study by the Medical Research Council UK, as part of its Global Alliance for Chronic Disease programme.

Who is the main contact?
Mrs Michelle Robinson
m.e.robinson@keele.ac.uk

Contact information

Type(s)
Public

Contact name
Mrs Michelle Robinson

ORCID ID
http://orcid.org/0000-0002-2266-8250

Contact details
Research Institute for Primary Care and Health Sciences,
Keele University,
Staffordshire
United Kingdom
ST5 5BG
01782 734853
m.e.robinson@keele.ac.uk

Type(s)
Scientific

Contact name
Prof Ziaul Haq

Contact details
Dean institute of Public Health and Social Sciences
Khyber Medical University,
Phase V, Hayatabad, Peshawar,
Khyber Pakhtunkhwa
United Kingdom
25100
+92 91 9217703, 9217696
drzia@kmu.edu.pk

Type(s)
Public

Contact name
Prof Saeed Farooq

ORCID ID
http://orcid.org/0000-0003-2088-6876

Contact details
School for Primary, Community and Social Care
Keele University
Newcastle-under-Lyme
United Kingdom
ST5 5BG
+44 1782 734973
s.farooq@keele.ac.uk

Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
PID-180207

Study information

Scientific Title
Supervised Treatment in Out-Patients for Schizophrenia: a community-based intervention to improve treatment adherence and reduce the treatment gap in schizophrenia (STOPS+)

Acronym
STOPS+

Study objectives
To evaluate the effectiveness of STOPS+ compared to Enhanced Treatment as Usual (ETAU) in improving the following in patients suffering from schizophrenia:
1. Functioning
2. Medication adherence

Ethics approval required
Old ethics approval format

Ethics approval(s)
Current ethics approval as of 13/08/2019:
1. Approved 30/04/2019, Keele University Faculty of Medicine and Health Sciences Research Ethics Committee (Keele University, Staffordshire, ST5 5BG; health.ethics@keele.ac.uk; 01782 732000), ref: MH-190017.
2. Approved 06/08/2019, Khyber Medical University Ethics Board (Phase - V, Hayatabad, Khyber Pakhtunkhwa, Peshawar, Pakistan; reb@kmu.edu.pk; 091 9217258), ref: DIR-KMU-EB/ST/000648

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2. Approval pending, Khyber Medical University Ethics Board (Phase - V, Hayatabad, Khyber Pakhtunkhwa, Peshawar, Pakistan; reb@kmu.edu.pk; 091 9217258).

Study design
Cluster randomized parallel assignment single masking study

Primary study design
Interventional

Secondary study design
Cluster randomised trial

Study setting(s)
Other

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use contact detail to request a participant information sheet.

Health condition(s) or problem(s) studied
Schizophrenia and schizoaffective disorders

Interventions
Current intervention as of 31/12/2020:
ETAU Control arm
In Pakistan, the usual treatment for patients suffering from psychosis consists of accessing hospital-based psychiatric services with little involvement of primary care and limited provision of medication from the hospital pharmacy. Most patients buy medicines from the local chemists. This will be enhanced with the training in MhGAP for PHC physicians and regular and reliable provision of psychotropic drugs at PHC centres in both arms. ETAU provided in the control clusters will include prescribing evidence-based pharmacological treatments, outpatient attendance in the psychiatry department of the local hospital (as deemed appropriate by the consultant), and brief counselling about the treatment and outcome of the disorder. If required, patients may be admitted to an inpatient unit at the hospital. The patients will be informed that the antipsychotic medication is available in the PHC centre and they can assess the centre for the supply of medication. The PHC physician will have the option to liaise with the treating psychiatrist, as provided in the mhGAP guidelines.

The treatment and follow-up duration is for 12 months in total. The follow-up assessments can be completed either face-to-face or over the telephone.

STOPS+ Intervention Arm
The intervention arm will consist of ETAU plus supervision by a trained family member for dispensing and administering medication. The family member will dispense and observe that the patient has taken the required medication and will record this information in a simple sheet of paper provided for this purpose. The treatment supervision will be reinforced by sending automated text message reminders to the person supervising the treatment at least once to confirm whether the medication has been administered.

The treatment and follow-up duration is 12 months in total. The follow-up assessments can be completed either face-to-face or over the telephone.

Randomisation
Randomisation will occur at the PHC level and will be allocated using a 1:1 ratio to either intervention arm (STOPS+) or Enhanced Treatment as Usual (ETAU) and stratified by urban/rural setting.

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Intervention Type
Behavioural

Primary outcome measure
Global Assessment of Functioning Scale (GAF, American Psychiatric Association, 2000) and Medication adherence are measured using a 5-point Likert scale (where 1 always takes medication and 5 is never), adapted from Herz et al. (2000) at baseline, 6 and 12 months.

Secondary outcome measures
Current secondary outcome measures as of 31/12/2020:
1. Mental state and psychiatric symptoms are measured using the Brief Psychiatric Rating Scale (BPRS)(Overall et al, 1962) at screening, baseline, 6 and 12 months.
2. Caregivers' burden is measured using the Family Burden Scale (Pai & Kapur, 1981) at baseline, 6 and 12 months.
3. Physical health assessments are measured using the Body Mass Index (BMI) Blood Pressure, waist circumference, PHC health record at baseline.
4. Perceived stigma is measured using the internalized Stigma of Mental Illness (Lysaker et al, 2007) at baseline, 6 and 12 months.
5. Cost of care is measured using the Client Service Receipt Inventory SRI (Chisholm et al, 2000) at baseline, 6 and 12 months.
6. Quality-adjusted life year (QALY) and general Health status are measured using the EuroQoL (EQ5D) (Whynes et al, 2008) which is a standardized instrument for measuring generic health

status will be used for computing quality-adjusted life year (QALY) at baseline, 6 and 12 months.
7. Side effects of antipsychotic medication are measured using the Glasgow Antipsychotic Side effect Scale (GASS) at baseline, 6 and 12 months.
8. Drug use is measured using the Drug Abuse Screening Test-10 (DAST-10 Skinner, 1982) at baseline, 6 and 12 months.
9. Illness severity, improvement and response to treatment is measured using the Clinical Global Impression (CGI Guy, 1976) at baseline, 6 and 12 months.
10. Depression is measured using the Patient Health Questionnaire (PHQ9 Kroenke, 2001) at baseline, 6 and 12 months.
11. Suicide ideation is measured using the Suicide Behaviours Questionnaire-Revised (SBQ-R Osman, 2001) at baseline, 6 and 12 months.

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Previous secondary outcome measures:
1. Mental state and psychiatric symptoms are measured using the Brief Psychiatric Rating Scale (BPRS)(Overall et al, 1962) at screening, baseline, 6 and 12 months.
2. Substance abuse is measured using the Mini-International Neuropsychiatric Interview (M.I.N.I.) section on substance abuse (Sheehan et al, 1998) at screening, baseline, 6 and 12 months.
3. Caregivers' burden is measured using the Family Burden Scale (Pai & Kapur, 1981) at baseline, 6 and 12 months.
4. Physical health assessments are measured using the Body Mass Index (BMI) Blood Pressure, waist circumference, PHC health record at baseline, 6 and 12 months.
5. Perceived stigma is measured using the internalized Stigma of Mental Illness (Lysaker et al, 2007) at baseline, 6 and 12 months.
6. Cost of care is measured using the Client Service Receipt Inventory SRI (Chisholm et al, 2000) at baseline, 6 and 12 months.

7. Quality-adjusted life year (QALY) and general Health status are measured using the EuroQoL (EQ5D) (Whynes et al, 2008) which is a standardized instrument for measuring generic health status will be used for computing quality-adjusted life year (QALY) at baseline, 6 and 12 months.
8. Side effects of antipsychotic medication are measured using the Glasgow Antipsychotic Side effect Scale (GASS) at baseline, 6 and 12 months.

Overall study start date
01/05/2019

Completion date
30/06/2022

Eligibility

Key inclusion criteria
Current inclusion criteria as of 13/08/2019:
Participant inclusion criteria
1. Have a diagnosis of schizophrenia or schizoaffective disorder based on the International Classification of Disease 10 (ICD-10) criteria assessed using the Mini-International Neuropsychiatric Interview (MINI, Sheehan et al., 1998).
2. Aged between 17-65 years.
3. Do not meet the criteria for remission as defined by the Remission in Schizophrenia Working Group (Andreasen et al., 2005).
4. Have capacity and are able to give informed consent.

Previous inclusion criteria:
1. Have a diagnosis of schizophrenia or schizoaffective disorder based on the International Classification of Disease 10 (ICD-10) criteria assessed using the Mini-International Neuropsychiatric Interview (MINI, Sheehan et al., 1998).
2. Aged between 17-45 years.
3. Do not meet the criteria for remission as defined by the Remission in Schizophrenia Working Group (Andreasen et al., 2005).
4. Have capacity and are able to give informed consent.

Participant type(s)
Patient

Age group
Adult

Sex
Both

Target number of participants
526

Total final enrolment
526

Key exclusion criteria

1. Have a serious or unstable medical illness.
2. Have a learning disability.
3. Have a severe drug dependence requiring treatment and/or detoxification.
4. Pregnant, trying to get pregnant or breastfeeding.

Date of first enrolment
01/09/2019

Date of final enrolment
30/04/2021

Locations

Countries of recruitment
Pakistan

United Kingdom

Study participating centre
Lady Reading Hospital
Soekarno Rd,
Pipal Mandi,
Peshawar,
Khyber Pakhtunkhwa
United Kingdom
25000

Study participating centre
Khyber Medical University
Phase V Hayatabad, Peshawar,
Khyber Pakhtunkhwa
United Kingdom
25100

Sponsor information

Organisation
Khyber Medical University

Sponsor details
Khyber Medical University,
Phase V, Hayatabad, Peshawar,
Khyber Pakhtunkhwa

Pakistan
25100
+92 91 9217703, 9217696
drzia@kmu.edu.pk

Sponsor type
University/education

ROR
https://ror.org/00nv6q035

Funder(s)

Funder type
Research council

Funder Name
Medical Research Council

Alternative Name(s)
Medical Research Council (United Kingdom), UK Medical Research Council, MRC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Publication and dissemination plan
A report based on results and key policy implication will be published for district and national health authorities in English, and in Urdu for local key stakeholders. In scientific media, we expect the following major outputs: 1) a paper describing the study protocol 2) a study describing the results of the cluster RCT in a leading international peer-reviewed journal 3) a publication based on the cost-effectiveness analysis of STOP+ in an international peer-reviewed journal and 4) a paper describing the qualitative assessment and 5) a paper describing the implementation process outcomes. We will design a study specific website and also disseminate findings through social media (Facebook page and Twitter accounts).

Intention to publish date
01/11/2022

Individual participant data (IPD) sharing plan

The 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?
Protocol article	protocol	30/06/2020	31/12/2020	Yes	No