

# Effectiveness of text message reminder and motivational interview on adherence to methadone treatment in Vietnam

<b>Submission date</b> 07/10/2024	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 15/10/2024	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 15/10/2024	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Methadone maintenance treatment (MMT) for opioid dependence has been widely used in many countries and has demonstrated effectiveness. Despite its effectiveness, non-adherence or poor adherence rates can reach up to 70%. Hence, various initiatives have been implemented and reported to improve adherence, including motivational interviews (MI) and text message reminders (TMR). Motivational enhancement through TMR and MI plays a pivotal role in addressing substance use and facilitating enduring recovery. However, to date, there has been no study on the impact of these methods in enhancing treatment adherence among methadone patients in Vietnam, especially in Ho Chi Minh City (HCMC). This study aims to assess the effectiveness of MI and TMR on treatment adherence among MMT patients in HCMC after three and six months of intervention. The findings will serve as a critical basis for proposing and developing practical interventions and support for these patients.

### Who can participate?

Patients aged 18 years old and above who are able to attend three MMT clinics during the study period

### What does the study involve?

The study consisted of three groups: control, TMR, and MI. Participants at each location were randomly allocated into three groups at district 6, district 8 and Binh Thanh district clinics. Within each clinic, patients were then randomly assigned to one of these three predefined groups. For the control group, patients were treated according to the standard guidelines of the Vietnamese Ministry of Health. For the MI group, patients underwent counseling sessions at least twice a month, typically lasting 10-20 minutes per patient, with flexibility for longer sessions based on individual needs and concerns. Each patient maintained a progress monitoring record throughout the 6-month intervention period, which included specific directives to explore the patient’s information and factors influencing their health, based on the four stages of MI: engaging, focusing, evoking, and planning. Patient progress was monitored through observed behavioral changes and the application of key MI techniques, while also assessing readiness, importance, self-efficacy, and commitment across all intervention phases. This

approach ensured continuous monitoring of patient advancement and timely provision of personalized support. For the TMR group, messages were sent using the brand name "FamilyMMT", following a structured schedule: three messages in the first week (at the beginning, middle, and end), two in the second week (at the beginning and end), and one in the third week (at the end), repeated in a cycle of weeks 1, 2, and 3. Patients in the intervention groups (MI and TMR) were monitored monthly over the 6-month period, with their achievement records announced and displayed in the designated counseling room for the study. Patient progress was assessed based on daily dosage adherence and monthly urine test results, extracted from the S.STORM dose management software in the dispensing department and standard testing result management software in the laboratory. Treatment adherence data was extracted from the dispensing department database and the daily dose management software, and categorized.

What are the possible benefits and risks of participating?

During the process of participating in the research, participants will receive free advice from experts who are lecturers at Ho Chi Minh City University of Medicine and Pharmacy, HCMC, if and when they need advice related to mental health or psychology. For the time spent on the questionnaire survey, they will receive 3 days of medication support for each time participation in the questionnaire interview. This participation and the information gained will help to plan the services to help them and other patients on methadone treatment.

There should not be any further inconveniences, risks, discomforts or side effects, effects to any questions.

Where is the study run from?

This study was carried out at three clinics located in District 6, District 8, and Binh Thanh District, which were among the first clinics to implement the MMT program in Vietnam

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

February 2018 to January 2019.

Who is funding the study?

Investigator initiated and funded

Who is the main contact?

Dr. Le Nu Thanh Uyen, [lenuthanhuyen@ump.edu.vn](mailto:lenuthanhuyen@ump.edu.vn)

## Contact information

### Type(s)

Public, Scientific, Principal investigator

### Contact name

Dr Uyen Le Nu Thanh

### ORCID ID

<https://orcid.org/0000-0001-8363-6300>

### Contact details

Department of Community Health, Faculty of Public Health, Ho Chi Minh City Medicine and Pharmacy University, 159 Hung Phu Street, District 8.

Ho Chi Minh  
Viet Nam  
700000  
+84 903313539  
lenuthanhuyen@ump.edu.vn

## **Additional identifiers**

### **Clinical Trials Information System (CTIS)**

Nil known

### **ClinicalTrials.gov (NCT)**

Nil known

### **Protocol serial number**

Nil known

## **Study information**

### **Scientific Title**

Effectiveness of text message reminder and motivational interview on adherence to methadone treatment in Vietnam: a randomized controlled trial

### **Acronym**

TMR MI MMT

### **Study objectives**

Text message reminders and motivational interviewing increase adherence to methadone treatment

### **Ethics approval required**

Ethics approval required

### **Ethics approval(s)**

approved 15/03/2018, The Ethics Committee for Biomedical Research at the University of Medicine and Pharmacy in Ho Chi Minh City (217 Hong Bang Street, Ward 11, District 5, Ho Chi Minh City, 700000, Viet Nam; +84 28 38556284; nghiencuukhoahoc@ump.edu.vn), ref: 95/DHYD-HDDD

### **Study design**

Multicenter interventional non-blinded randomized controlled trial

### **Primary study design**

Interventional

### **Study type(s)**

Efficacy

### **Health condition(s) or problem(s) studied**

Treatment adherence on methadone maintenance treatment patients

## **Interventions**

For the control group, patients were treated according to the standard guidelines of the Vietnamese Ministry of Health. They received the same services previously provided by the clinics, including daily methadone intake, counseling, follow-up appointments, and urine testing as per the MMT program's regulations.

For the motivational interview (MI) group, patients underwent counseling sessions at least twice a month, typically lasting 10-20 minutes per patient, with flexibility for longer sessions based on individual needs and concerns. Each patient maintained a progress monitoring record throughout the 6-month intervention period, which included specific directives to explore the patient's information and factors influencing their health, based on the four stages of MI: engaging, focusing, evoking, and planning. Patient progress was monitored through observed behavioral changes and the application of key MI techniques, while also assessing readiness, importance, self-efficacy, and commitment across all intervention phases. This approach ensured continuous monitoring of patient advancement and timely provision of personalized support.

For the text message reminder (TMR) group, messages were sent using the brand name "FamilyMMT", following a structured schedule: three messages in the first week (at the beginning, middle, and end), two in the second week (at the beginning and end), and one in the third week (at the end), repeated in a cycle of weeks 1, 2, and 3. Typically dispatched early in the morning, around 6-8 am, or in the evening before 9 pm, these messages were composed of predetermined templates or adjusted as needed in response to sudden contextual changes, such as weather variations (rain, wind, storms, intense sunshine, festivals), which might impact patients' daily attendance for medication intake. The messages served as both reminders and motivational encouragements for patients, with the content incorporating four categories aligned with the MI approach: greetings, announcements, congratulations, and thanks (Category 1); motivational reminders (Category 2); encouragement of positive behaviors (Category 3); and provision of emotional support, empathy, and care (Category 4).

Patients in the intervention groups (MI and TMR) were monitored monthly over the 6 months, with their achievement records announced and displayed in the designated counseling room for the study. Patient progress was assessed based on daily dosage adherence and monthly urine test results, extracted from the S.STORM dose management software in the dispensing department and standard testing result management software in the laboratory.

To ensure the representativeness of patient characteristics, a systematic random sampling method based on the patient list at each clinic was utilized to select participants, with a sampling interval of 2, meaning that for every two patients from the existing list at each clinic, one was selected and invited to participate in the study. To minimize differences in patient characteristics, healthcare workers, and services at each clinic, the sample size was divided using a stratified random sampling method. Participants at each location were randomly allocated into two groups: District 6 (75 MI and 75 TMR), District 8 (75 MI and 75 control), and Binh Thanh District (75 TMR and 75 control). Within each clinic, patients were then randomly assigned to one of these two predefined groups.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

Treatment adherence data was measured using data extracted from the dispensing department database and the daily dose management software, and categorized into three groups:

complete adherence, consecutive adherence, and weekend adherence at baseline, after 3 months of intervention, after 6 months of intervention

### **Key secondary outcome(s))**

The following secondary outcome measures, unless stated, were measured using data extracted from the dispensing department database and the daily dose management software, and categorized into three groups: complete adherence, consecutive adherence, and weekend adherence:

1. Complete adherence, defined as patients adhering fully (100%) without missing any doses over the past three months
2. Consecutive adherence, defined as patients not missing three or more consecutive doses within the past three months
3. Weekend adherence, defined as patients not missing any doses over the past weekend
4. Tobacco addiction measured using the Fagerström Test for Nicotine Dependence (FTND) at baseline, after 3 months of intervention, and after 6 months of intervention
5. Alcohol use measured using the Alcohol Use Disorders Identification Test (AUDIT) at baseline, after 3 months of intervention, and after 6 months of intervention
6. The availability of social support measured using the Medical Outcomes Study – Social Support Survey (MOS-SSS) at baseline, after 3 months of intervention, and after 6 months of intervention
7. Interpersonal trust in patient-physician relationships measured using the Trust in Physician Scale (TPS), where higher scores reflect greater trust Satisfaction and the treatment facility assessed using a 5-point Likert scale at baseline, after 3 months of intervention, and after 6 months of intervention
8. General health status measured using the EuroQol - 5 Dimensions - 5 Levels (EQ-5D-5L) and the EuroQol - Visual Analogue Scale (EQ-VAS) at baseline, after 3 months of intervention, and after 6 months of intervention
9. Comorbidities and ARV treatment measured using data obtained from medical records at one timepoint

### **Completion date**

31/01/2019

## **Eligibility**

### **Key inclusion criteria**

1. Aged 18 years old and over
2. Willing to participate
3. Able to attend the methadone maintenance treatment (MMT) clinics during the study period were recruited from the three MMT clinics.

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Lower age limit**

19 years

**Upper age limit**

63 years

**Sex**

All

**Total final enrolment**

450

**Key exclusion criteria**

1. Unable to communicate because of any health problem that is considered limited, too weak to participate such as a serious illness
2. Serious neurological problems
3. Has been arrested during methadone maintenance treatment (MMT) have violated the law such as gathering to use drugs, illegally trading drugs or disrupting social order and security such as: robbery, murder. There were no links during the initial survey period of more than one week.

**Date of first enrolment**

26/04/2018

**Date of final enrolment**

25/05/2018

## **Locations**

**Countries of recruitment**

Viet Nam

**Study participating centre**

**Community consultation and support department - District 6 Methadone Clinic**

1039A Hong Bang street, ward 12, district 6

Ho Chi Minh city

Viet Nam

700000

**Study participating centre**

**Community consultation and support department - District 8 Methadone Clinic**

1724 Pham The Hien street, district 8

Ho Chi Minh City

Viet Nam

700000

**Study participating centre**

**Community consultation and support department – Binh Thanh District Methadone Clinic**  
104 Dinh Bo Linh street, ward 26, Binh Thanh district  
Ho Chi Minh City  
Viet Nam  
700000

## Sponsor information

### Organisation

Ho Chi Minh City Medicine and Pharmacy University

### ROR

<https://ror.org/025kb2624>

## Funder(s)

### Funder type

Other

### Funder Name

Investigator initiated and funded

## Results and Publications

### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be available upon request from Dr Le Nu Thanh Uyen, [lenuthanhuyen@ump.edu.vn](mailto:lenuthanhuyen@ump.edu.vn).

The research results will be shared with research participants, methadone clinics where patients are being treated directly and shared with Methadone clinics in Vietnam, and the publication of domestic and foreign articles. All shares will be anonymous. The doctoral thesis will be stored at three national academic libraries in Vietnam: The Library at the University of Medicine and Pharmacy, Ho Chi Minh City, the National Library in Ho Chi Minh City and the National Library in Hanoi, Vietnam. Once the data are collected and approved, the doctoral thesis defense committee will announce the results to patients, and methadone clinics and publish articles.

In the patient information sheet and consent form to participate in the research, there is information for the patient about who the data will be shared and the patient knows that articles will be published domestically and internationally for this research (attached files: information statement for participants, consent form). All aspects of the study, including data and results, will be treated confidentially and only the researcher will have access to participant information. The patient number is required to collect information about their treatment, but no

identifying information will be needed in the questionnaire. Only the researchers named above know which set of questions belongs to whom. Only our codes are used to identify question sets. Data will be stored in a locked cabinet at the office of the Department of Community Health, University of Medicine and Pharmacy at Ho Chi Minh City for 3 years and then all questionnaires will be shredded and destroyed by the researcher. A report of this research may be submitted for publication, but the individuals participating will not be identified in the report. This study received ethical approval from the Ethics Committee for Biomedical Research at the University of Medicine and Pharmacy in Ho Chi Minh City and all MMT clinics involved in the study.

**IPD sharing plan summary**

Available on request

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Participant information sheet</a>			14/10/2024	No	Yes
<a href="#">Participant information sheet</a>			14/10/2024	No	Yes
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes