Jockey Club JoyAge Extension: Territory-Wide Implementation of Holistic Support for Elderly Mental Wellness

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Hong Kong Christian Service

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Hong Kong Sheng Kung Hui Welfare Council Limited

Hong Kong Young Women's Christian Association

New Life Psychiatric Rehabilitation Association

St James' Settlement

The Hong Kong Society for the Aged

The Mental Health Association of Hong Kong

The Neighbourhood Advice-Action Council

Tung Wah Group of Hospitals

Background

The Jockey Club Holistic Support Project for Elderly Mental Wellness (JC JoyAge) has developed and implemented a collaborative stepped care model for older persons at-risk of or with depression in four districts in Hong Kong since 2015 (Clinical Trials Identifier: NCT03593889). Results from JC JoyAge show that the collaborative stepped-care model is effective in improving older persons' mental wellness, and the specialised training and engagement of Peer Supporters are effective in building capacity in the community. The proposed impact extension programme will be four years (from 2020 to 2023), and the overall goal is to expand the JC JoyAge model to all 18 districts in Hong Kong, to provide integrated and evidence based mental health services to older adults with subclinical depressive symptoms, with the hope of model adoption in regular service upon project completion.

Objectives

a) To implement JC JoyAge clinical protocol and guidelines to coordinate care among community mental health and elderly services centres for elderly mental wellness in 18 districts;
b) To engage vulnerable and at-risk older adults in the community through productive ageing activities and mental wellbeing self-management training;
c) To enhance the capacity of social service staff in handling elderly depression through specialized and *infusion* training and knowledge exchange;
d) To raise public awareness and elderly mental health literacy among family members, neighbours, community stakeholders, and the general public to encourage early detection/help-seeking on depressive risk of older adults; and
e) To establish evidence of the effectiveness and cost-effectiveness of JC JoyAge Phase II model.

Methods

Design

This intervention study is designed as a prospective, open-labelled, single-arm trial. In the one-group pretest-posttest design, data will be collected at the baseline (T0), after completion of the intervention (T1), and after completion of the exit-plan (T2).

Participants

Older people with mild to moderately severe depressive symptoms (n=3,000) recruited from 14 JoyAge partner non-governmental organisations (NGOs) in 18 districts in Hong Kong.

The inclusion criteria for participants are:

- age 60 years or above; and
- have depressive symptoms of mild level or above; and
- able to give informed consent to participate

The exclusion criteria for participants are:

- known history of autism, intellectual disability, schizophrenia-spectrum disorder, bipolar disorder, Parkinson's disease, or dementia; and
- (temporary exclusion criteria) imminent suicidal risk; and
- difficulty in communication

Assessment Procedures

After basic screening, baseline evaluation (T0/intake) will be performed by trained social worker employed by NGOs and clinical information will be used for triage. After completion of the intervention or drop-out, a progress review evaluation (T1/review) will be done by social worker as well, and a client is discharged if he/she meets the exit criteria at T1. For dischargeable client, a 2-month exit plan will be provided, and he/she will be assessed at the end of the exit period (T2/exit) by Peer Supporters, specifically on progress in personal goals of recovery.

Assessment will last for around 60 minutes for all participants at T0 and T1, and for around 30 minutes at T2 for those who are eligible for discharge.

Interventions

Participants in the intervention group will receive a collaborative stepped care programme provided by registered social workers and trained Peer Supporters from elderly service units, the Districts Elderly Community Centres (DECC), and mental

health service units, the Integrated Community Centre on Mental Wellness (ICCMW), all local NGOs. In the collaborative stepped care model (see Table 1), older persons are matched to the intervention module that most suits their current needs. The person does not have to start at the lowest level of intervention to progress to the next level of intervention. Rather, they enter the service with the intervention level aligned to their needs, e.g., level of risks, symptom severity (measured by the Patient Health Questionnaire, PHQ-9), and intervention response. Home visits or other format of contact will be delivered by trained Peer supporters employed by the NGOs to detect and engage hidden cases.

Table 1. JoyAge Collaborative Stepped-Care Service

	Indicated Prevention for Mild Symptoms	***Clinical Intervention for Moderate Symptoms***	***Intensive Clinical Intervention for Moderately Severe Symptoms***
Intervention goal	To reduce depressive symptom level to normal level, enhance resilience	To reduce depressive symptom level to mild depression or below	To reduce depressive symptom level to moderate depression or below
Key intervention mode	Psychoeducation on a specific topic (insomnia, pain, stress, and anxiety), or low-intensity psychotherapy	High-intensity psychotherapy	High-intensity psychotherapy
Principal team	DECC	DECC and ICCMW	ICCMW

For older adults with mild depressive symptoms (PHQ-9 score 5-9), 6-8 weeks of indicated prevention with psychoeducation or low-intensity psychotherapy would be provided by the project social workers in the DECC. For participants with moderate symptoms (PHQ-9 score 10-14), 6-8 weeks high-intensity clinical intervention, mainly cognitive behavioral therapy (CBT), would be provided by project social workers from the DECC and ICCMW. For those with moderately severe depressive symptoms, individual CBT or group CBT at higher frequency would be provided by the project social workers from the ICCMW.

Participants should be stepped up to clinical intervention at a more intense level if they showed increased level of depressive symptoms after receiving one rounds of services,

and stepped down to lower level if they showed improvements. Participants showing severe depressive symptoms or increased suicide risk should be referred out to other appropriate services. In the review session after completion of the intervention, when a person is assessed to be meeting the discharge criteria, a 2-month Exit Plan involving a Peer Supporter follow-up should be invoked. The key social worker will work with the client to develop a 6- to 8-week Mental Health Wellness Plan (e.g., activity scheduling) to further improve or consolidate the protective factors.

All intervention would be conducted by registered social workers who are trained by this project and employed by the NGOs. The trained Peer Supporters will be matched to individual older adults to walk them through the process with regular follow-up until discharged or referred out.

Measurements

Basic demographics including age, gender, marital status, education (years and highest attainment), and work experience will be collected at T0. At following time points, only updates of the basic demographics will be recorded. At both T0 and T1, a full set of assessment will be conducted; and at T2, only the primary outcomes would be measured.

Primary outcomes

1. Depression: The Patient Health Questionnaire (PHQ-9) (Kroenke, Spitzer, & Williams, 2001): a 9-item instrument that incorporates depression diagnostic criteria with other leading major depressive symptoms, and rates the frequency of the symptoms which factors into the scoring severity index. PHQ-9 scores of 5-9, 10-14, 15-19, 20 and above represent mild, moderate, moderately severe, and severe depression.
2. Anxiety: Generalized Anxiety Disorder 7-item scale (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006), a 7-item scale, responses to each item are rated on a 4-point Likert scale and range from 0 to 3. It taps on the most prominent diagnostic features for GAD and scores of 5, 10, and 15 are taken as the cut off points for mild, moderate, and severe anxiety, respectively.
3. Loneliness: UCLA loneliness scale (UCLA-3) (Hughes, Waite, Hawkley, & Cacioppo, 2004), a 3-item self-report measuring individual's perceived loneliness. Each item is evaluated with scores ranging from 0 (never) to 3 (often), total score

is the sum of all items, and higher score indicates higher level of perceived loneliness.

4. Self-harm risk assessment: Assessment by social service staff on participant's risk of self-harm (yes or no answers to 10 items) and harm to others (yes or no answers to 4 items), and in the end social service staff will give an overall evaluation of suicidal risk score ranging from 0-No to 3-High.
5. Wellbeing – quality of life: EQ-5D-5L (Herdman et al., 2011), a generic preference-based measure of health at five dimensions (5D), each with five levels (5L) of problems, and the five dimensions are: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. The traditional Chinese version for Hong Kong developed by EuroQol Group would be used.
6. Personal recovery: Recovery Assessment Scale (RAS), validated Chinese version (Mak, Chan, & Yau, 2016), a 24-item RAS assesses personal recovery, specifically focusing on self-determination and hope as the major areas of recovery. Items are rated on a five-point likert scale. For the purpose of this study, only the five items from the "Goal and success orientation" factor would be included.
7. Treatment and recovery goal: Self-developed questionnaire asking about present, anticipated, and desired personal best in personal recovery goal, social network, and activities to participate in the community.
8. Health care expenditures: Client Service Receipt Inventory (CSRI) (Chisholm et al., 2000), to collect the current types and level of social services which comprise the care package of each participant, and a locally adapted short version would be developed for this purpose. Based on the localized health utilities and duration, we will further calculate the QALYs. The service utilization data will be obtained from Health Authority[1], covering information on outpatient visits, hospitalization days, Accident and Emergency service utilization, types of medications and operations, other diagnoses, self-harm, and any other major cost items that may be affected by depression with cost implications.

[1] Separate application has been submitted to Hospital Authority (HA) Institutional Review Board for HA data use.

Secondary outcomes

1. Lifestyle: Typical Day, a semi-structured interview asking clients about their typical day activities in three domains, physical, social, and mental. A combination of being active in at least two domains would be used as one of the exit criteria.
2. Cognition: Hong Kong Montreal Cognitive Assessment 5-Minute Protocol (HK-MoCA 5-Min) (Wong et al., 2015), a validated and reliable cognitive screen for stroke and transient ischemic attack. It includes four items examining attention, verbal learning and memory, executive functions/language, and orientation extracted from the MoCA.
3. Support network: asking participants to list out names of people who they would turn to when they feel down, and when they need help for trivial things.
4. Perceived environment: Self-developed questions of perceived residential environment derived from sense of community scale (McMillan & Chavis, 1986) and neighbourhood environment walkability scale (Saelens, Sallis, Black, & Chen, 2002).
5. Pain management: Using Chronic pain acceptance questionnaire (CPAQ-8) (Fish, McGuire, Hogan, Morrison, & Stewart, 2010), participants will rate the extent to which the eight statements about pain acceptance are true for them on a 7-point Likert scale, and higher scores indicates greater levels of acceptance.

Data Analysis

For the main outcome measures of depressive symptoms/risks, wellbeing, and personal recovery, repeated measures analysis and growth curve modeling with three time points will be applied. All results will be reported with the appropriate effect sizes, along with statistical significances and confidence intervals.

To evaluate cost-effectiveness and sustained cost-effectiveness, cost-utility analysis will be used for analyzing data at different time-points. We focus on the quality-adjusted life year (QALY), a generic measure of health, like a currency which combines the quality of life and duration of the quality of life (Luyten, Naci, & Knapp, 2016). It not only captures observable health outcomes but also reflects the subjective appraisals of how bad it is to experience these outcomes from participants' perspective. Findings of cost-utility analysis will be reported as an incremental cost-utility ratio (ICUR),

indicating that the incremental cost per QALYs gained. We will use STATA 14.0 (StataCorp, 2015) for data analysis.

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THE UNIVERSITY OF HONG KONG

Jockey Club Holistic Support Project for Elderly Mental Wellness (JC JoyAge)

Service Application and Personal Data Use Consent Form

You are invited to participate in the JC JoyAge: Jockey Club Holistic Support Project for Elderly Mental Wellness ('this study'). Before you decide, it is important for you to understand why this study is being done and what it will involve. Please take the time to read the following information carefully and discuss it with friends, relatives and professionals if you wish. Ask the project team if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

PURPOSE OF THE STUDY

Older adults in Hong Kong face a variety of mental wellness challenges. This study aims at evaluating the current mental health services and the effectiveness and cost-effectiveness of the intervention delivered by this study, which has the goals of improving older adults' mental wellness and building capacity in the community. This study lasts for four years.

CRITERIA FOR PARTICIPATION

You are invited to take part in this study because you have met the following criteria 1) age 60 years or above; 2) have depressive symptoms of mild level or above; and 3) able to give informed consent to participate; as well as 4) **without** known history of autism, intellectual disability, schizophrenia-spectrum disorder, bipolar disorder, Parkinson's disease, or dementia; 5) (temporary criterion) **without** imminent suicidal risk; and 6) **without** difficulty in communication.

PARTICIPATION AND WITHDRAWAL

Taking part in this study is completely voluntary. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. You can withdraw at any time without consequences of any kind. This will not affect the standard of care you receive.

WHAT WILL HAPPEN

The Jockey Club Holistic Support Project for Elderly Mental Wellness project (JC JoyAge) will provide a range of integrated and evidence-based mental health services. Services include assessment, group activities, peer support, psychotherapy, etc. The Organisation will do its utmost to ensure that all services are in compliance with the Code of Practice and strive to provide a high standard of service. You are also invited to complete a questionnaire and some tests twelve months and eighteen months later after the service entry. All assessments will be conducted by trained Social Workers or Research Assistants. During the course of this study, if the participants do not respond to intervention positively within 9 months, referral to existing services will be made.

SERVICE MODEL UNDER STUDY

This study is examining an impact extension of a developed and implemented collaborative stepped care model for older persons at-risk of or with depressive symptoms. The goal of this study is to establish evidence of the effectiveness and cost-effectiveness of the extended service models, so as to support the model adoption in regular service territory-wide in Hong Kong upon project completion.

POTENTIAL RISKS / DISCOMFORTS

There is no known risk of participating in this type of study.

ANTICIPATED BENEFITS

Anticipate benefits include reduced depressive symptoms and/or risk levels, improved wellbeing and personal recovery, improved general health and healthy lifestyle, and fewer uses of primary/secondary/tertiary healthcare resources. The effect of intervention depends on your joint efforts and cooperation with the therapist. The therapist employs evidence-based psychotherapy in order to achieve the goal of intervention, but the therapist cannot unilaterally guarantee that the intervention will give the expected effect. Therefore, regardless of the outcome of the intervention, the therapist or other Project staff is not responsible for any legal responsibility.

IF NEW INFORMATION BECOMES AVAILABLE

Sometimes during the course of a research project, new information becomes available about the treatment that is being studied. If this happens, your therapist will tell you about it and discuss with you whether you want to continue in the study. If you decide to withdraw, your therapist will make arrangements for your care to continue. If you decide to continue in the study you will be asked to sign an updated consent form. Also, during the period of service acceptance, if it is believed that another service organization can provide services that are more appropriate to you, we will make a referral upon your agreement.

AFTER THE RESEARCH STUDY

Participants will resume to receiving the pre-study service (if any).

IF THE SITUATION DETERIORATES

At any time of the service, in case of concerns about a person's suicidal risk, or if the person is assessed as having moderate or higher risk of suicide, referral will be made to a hospital or Fast Track Clinic (FTC) for Elderly Suicide Prevention Programme (ESPP). Project Social Workers should also follow organization protocol for risk management and inform their service supervisor or a responsible staff.

PRIVACY AND CONFIDENTIALITY

If you consent to take part in the research your personal information may be inspected by the research team for purposes of analysing the results. They may also be looked at by people from the research team and regulatory authorities to check that the study is being carried out correctly. This study will obtain personal information from the Hospital Authority. Any information obtained in this study will remain very strictly confidential, will be known to no one who is not a member of the research team, and will be used for research purposes only. Participants will not be identified by name in any report of the completed study.

AFTER THE STUDY

The results of this study will be published. Preliminary findings will be included in the reports published by the Hong Kong Jockey Club Charities Trust. Final results will be published in academic publications after the entire project is completed, approximately in the year 2024. Participants may also obtain a copy of the study results from the research team. You will **not** be identified in any report/publication.

FUNDING

The Jockey Club Holistic Support Project for Elderly Mental Wellness project (JC JoyAge) is funded by the Hong Kong Jockey Club Charities Trust.

RESEARCH ETHICS REVIEW

This study is reviewed by Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB) and the Human Research Ethics Committee for Non-Clinical Faculties, the University of Hong Kong.

RIGHTS OF RESEARCH PARTICIPANTS

If you have any questions about the research, please feel free to contact Miss Dara Leung at HKU (Telephone: 3917-1758; Email: daralky@hku.hk). If you wish to know more about the rights as a research participant, please contact the Human Research Ethics Committee for Non-Clinical Faculties, the University of Hong Kong (2241-5267). Thank you for taking part in this study.

Jockey Club Holistic Support Project for Elderly Mental Wellness (JC JoyAge)

Service Application and Personal Data Use Consent Form

SIGNATURE OF RESEARCH PARTICIPANTS

I have read, or someone has read to me, and I understand the information provided above and contents explained by the social worker from _____ (Organization). I have been given an opportunity to ask questions and all of my questions have been answered to my satisfaction. I have been given a copy of the information sheet and this form.

District: _____

	Please tick the appropriate box
I agree that this study obtains my personal information from the Hospital Authority for providing more appropriate services and for research purposes.	☐
I agree that the information I provided in this study can be used for research purposes in the future.	☐
I agree to be contacted by the research team to provide information about other research projects in the future.	☐
I agree this study records the course of my acceptance of psychological services for academic research, guidance and educational purposes.	☐
I agree this study uses my profile / event photo, film and sound recording, reproduced in the agency or this service program for communications, publications, leaflets and web pages.	☐

_____	_____	_____
Name of participant	*Date*	*Signature*
_____	_____	_____
Name of person taking consent	*Date*	*Signature*