Parallel Session 4: Translating Knowledge to Primary Healthcare

T4a - The Hong Kong Mental Morbidity Survey for Older People

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Background: Population ageing is a major public health concern. Dementia and mental disorders in late life not only affect independent functioning, but also pose significant burden to the elders and their caregivers.

Aims and Objectives: The Hong Kong Mental Morbidity Survey for Older People (HKMMSOP) is a commissioned HMRF project which aims to evaluate current prevalence of neurocognitive and/or mental disorders in Hong Kong adults aged 60 or over.

Methods: Older adults, living either in the community or residential facilities would be randomly recruited through residential addresses over Hong Kong.

Major findings: In November 2021, over 2,500 participants have been assessed. The unweighted prevalence of mild and major neurocognitive disorders was 26.8% and 5.1% respectively. 10.4% of participants had diagnosable anxiety and depressive disorders. Older age, lower educational attainment, higher level of chronic physical morbidity were associated with higher risks of cognitive impairment and mental health problems. We also found that participation of a wider range of leisure based cognitive, mental and social activities were associated with higher cognitive function and lower level of mood symptoms.

Discussion: We observed a relatively high prevalence of mild neurocognitive disorder, while the prevalence of major neurocognitive disorder did not appear to exhibit great leap over the years. From the perspective of early intervention for cognitive and mental health, we should further explore the pragmatics of introducing client based healthy lifestyles.

Project Number: MHS-P1 Part 3

Parallel Session 4: Translating Knowledge to Primary Healthcare

T4a - A 9-year Follow Up of the Hong Kong Mental Morbidity Survey (HKMMS) on Chinese Adults with Depressive and Anxiety Symptoms

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Background: Mental disorders are important causes of morbidity and loss of productivity in adulthood. The Hong Kong Mental Morbidity Survey (HKMMS), conducted from 2010 to 2013 (T0), reported that the one-week weighted prevalence of common mental disorders (CMD) was 13.3% in the Hong Kong adult population.

Aims and Objectives: The current study aims to evaluate the long-term trajectories of CMDs in the Hong Kong community.

Methods: Participants assessed at the HKMMS were invited for 7 year follow up. Clinical Interview Schedule – Revised (CISR) were assessed for CMD. Information on psychosocial and physical health status were obtained through structured questionnaires.

Results: In June 2021, 1,500 participants were assessed for 7 year follow up (Baseline: normal – 890, subsyndromal group – 360, CMD group -250) For the baseline normal group, 69 % remained well; 8% had episode onset of CMD at 7 years. For the baseline subsyndromal group, 37% achieved normal level; and 29% had episode onset of CMD. For the Baseline CMD group, 16% had remission; 22% improved to subsyndromal group and 61% remained with significant depressive and anxiety at 7 years. A higher level of baseline mood symptoms and physical health problems, current poor perceived social support and life events in recent years were associated with high level of mood symptoms at 7 years.

Discussion: The findings suggested that while depressive and anxiety disorders persisted in a proportion of people, there are some people whose symptoms attenuated or remitted. With the recognition that policy should target on the adverse psychosocial factors, there may be a room to booster pro-mental well being factors as part of community based mental health interventions.

Project Number: CFS-CUHK4

Parallel Session 4: Translating Knowledge to Primary Healthcare

T4b - In-depth Study of the Cost-effectiveness of the Risk Assessment and Management Programme for Hypertension (RAMP-HT) for Patients with Uncontrolled Hypertension in Primary Care in Hong Kong

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Introduction: The Risk Assessment and Management Programme for Hypertension (RAMP-HT) of the Hospital Authority is an evidence-based, structured multi-component intervention incorporating team-based risk-guided management strategies focusing on total cardiovascular disease (CVD) risk control. RAMP-HT improved blood pressure control of patients with uncontrolled hypertension after 1-year compared to those receiving usual public primary care. This project evaluated the long-term effectiveness on reducing cardiovascular complications and mortality, and the 5-year and estimated lifetime cost-effectiveness of RAMP-HT.

Methods: This is a prospective cohort study on adult patients with hypertension without complications or diabetes mellitus receiving public primary care in Hong Kong. A total of 79,161 RAMP-HT participants were matched one-to-one with patients receiving usual care in 2011-2013. Effects of RAMP-HT on CVD and all-cause mortalities were evaluated using Cox proportional hazards regression. The number-needed-to-treat to prevent one CVD event/mortality event was determined. Programme cost of RAMP-HT was collected from the Hospital Authority using costing questionnaires. Public medical costs were estimated based on public health services utilization rates, while a subset of 486 patients completed a survey on private medical costs. Cost-effectiveness of RAMP-HT per CVD and all-cause mortality prevented, and event-free year gained were calculated. A Monte-Carlo simulation model was developed using empirical data to evaluate the lifetime cost-effectiveness of RAMP-HT.

Results: After a median follow-up of 5.3 years, RAMP-HT participants had significantly lower cumulative incidences of CVD (9.14%vs.14.95%, $p<0.001$) and all-cause mortality (5.04%vs.10.99%, $p<0.001$) compared to usual care patients, corresponding to a 5.81% and 5.95% absolute risk reduction, respectively. The number-needed-to-treat was 17 to prevent one CVD event and 20 for all-cause death. The total programme cost over 5 years per RAMP-HT patient was HK$521. RAMP-HT participants had significantly lower direct public medical costs over 5 years than usual care patients (RAMP-HT: HK$61,904; Usual care: HK$91,561) but similar annual private medical costs (RAMP-HT: HK$3,347; usual care: HK$3,588). The cost invested on RAMP-HT to prevent/ gain 1 event-free-year was HK$9,058/HK$1,905 for CVD and HK$10,345/HK$3,490 for all-cause mortality. RAMP-HT was estimated to be cost-saving, saving HK$5,569 per RAMP-HT participant compared to patients receiving usual care over lifetime.

Conclusion and Implications: The team-based RAMP-HT, through coordinated use of each healthcare professional's expertise to deliver quality hypertension management, was highly effective in preventing hypertension-related complications and mortality, and saving public healthcare cost. The benefits of integrating such model of care in busy naturalistic primary care were sustainable and could alleviate the burden of public healthcare system.

Project Number: 13142471

Parallel Session 4: Translating Knowledge to Primary Healthcare

T4c - Effectiveness of Auriculotherapy on Older People with Insomnia

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Introduction and Project Objectives: Insomnia is common among the elderly. Given the adverse effects of prolonged use of hypnotics, three minimally invasive procedures, namely, laser auriculotherapy (LAT), magneto-auriculotherapy (MAT), and their combination, were investigated to determine the desirable treatment modality to improve the sleep conditions of elderly. This study aims to determine the optimum treatment protocol of AT for improving sleep conditions and quality of life in elderly with insomnia.

Methods: This is a three-arm double-blinded randomised trial. A total of 145 eligible subjects were randomised into (1) placebo LAT and MAT; (2) LAT and placebo MAT; and (3) LAT plus MAT. Seven auricular points namely 'shenmen', 'heart', 'liver', 'spleen', 'kidney', 'occiput' and 'subcortex' were used. Treatment was delivered three times a week, for six weeks. The subjects were assessed at baseline, 6 weeks, and follow-up after 6 weeks, 3 months and 6 months. Generalised Estimating Equations were used for evaluating interactions among the groups over time on the primary outcome – Pittsburgh Sleep Quality Index (PSQI), and secondary outcomes (sleep parameters using actigraphic monitoring, quality of life using SF-12, and Patient Health Questionnaire (PHQ-9) for assessing depression status).

Results: The treatment effects of the three protocols were comparable. Significant improvements in all the subjective measures (PSQI, health-related quality of life, depression status) for individual groups over time were indicated. Significant deduction in the awakening time after sleep onset and increase in sleep efficiency were detected in subjects who received MAT but not in those who received LAT alone. The combined MAT and LAT approach did not show any advantage over MAT alone.

Conclusion and Discussions: The findings of this meticulous RCT can provide valuable information and increase the understanding of the therapeutic effect of AT, either combined MAT, and LAT or MAT alone. It is suggested that a longer therapeutic course and more frequent administration of LAT may be considered in future trials to achieve the optimal treatment effect. In general, AT was demonstrated to be a well-received treatment modality with minimal adverse effects, and effective in improving sleep conditions of the elderly. This project addresses the thematic priority of Chinese Medicine under the Health and Health Services Theme of HMRF. The findings can offer insights in future research directions, and to translate knowledge to primary healthcare in the community.

Trial Registration: ClinicalTrials.gov: NCT02970695

Project Number: 13144061

Parallel Session 4: Translating Knowledge to Primary Healthcare

T4d - Use of Nicotine Replacement Therapy (NRT) Sample and Brief Smoking Cessation Advice for Recruiting Smokers to Smoking Cessation Services and Motivating Quit Attempts

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Introduction and Project Objectives: Nicotine replacement therapy (NRT) sampling is effective to increase use of smoking cessation service use and tobacco abstinence in primary care settings. This study promoted the delivering of NRT sampling and brief smoking cessation advice to smokers and the effects of this strategy on smokers' recruitment and cessation outcomes when it was applied at outdoor smoking hotspots.

Methods / Implementation: This is a pragmatic two-arm cluster-randomized trial which was conducted in 4 phases: (1) Training of smoking cessation (SC) ambassadors (SCAs) for the SC promotion; (2) SC promotion sessions to deliver the quitting advice and NRT sampling (experimental group), or the quitting advice only (control group); (3) Follow-up of the recruited smokers; (4) Evaluation of the effectiveness of promotion, quit outcomes, and use of NRT sampling.

Results / Outcome: This project trained 59 SCAs, held 244 smoking cessation promotion sessions, approached 9224 smokers and offered SC counseling to 1427 (15.5% of all approached smokers) smokers onsite. This project helped 299 (21.0% of smokers received counseling) smokers to quit successfully. By intention to treat, the NRT sample significantly attracted more participants to receive nurses' onsite counseling (Adjusted incident rate ratio=1.35, 95%CI, 1.12-1.62, $p<0.01$). Group differences in other recruitment outcomes were not significant. The two trial groups showed similar quit attempts (RR (risk ratio) =1.02 and 0.90 at the 1-, and 3-month follow-up, respectively, all p-values > 0.05), but the experimental group reported lower use of cessation service (RR=0.72, and 0.85 at the 1-, and 3-month follow-up, respectively, all p-value < 0.05). Tobacco abstinence at 6-month was similar in both groups. At 1-month follow-up, in the experimental group who received NRT sample, 51.7% had ever used the NRT sample and 34.1% completed the full course of the NRT samples. At 1-month follow-up, no significant group difference in the use of any NRT in the past month was detected (39.8% and 34.4%, $p>0.05$).

Conclusion: Delivery of NRT sample at outdoor smoking hotspots increased uptake of onsite nurses' brief counseling. This strategy reduced enrolment of smoking cessation services, but it did not alter quit attempts and long-term tobacco abstinence.

Project Number: 01170418

Parallel Session 4: Translating Knowledge to Primary Healthcare

T4e - 「乳妳同盟」母乳餵哺社區支援計劃

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Introduction:
本計劃旨在集結跨界別力量，如：護理專業人士、具母乳餵哺或具陪月經驗的婦女等，為準新手父母及母乳餵哺家庭提供支援服務，讓媽媽及其家庭成員在知識及照顧技巧層面獲得正確的資訊，同時承托媽媽在情緒層面上的需要，正面鼓勵及支持新生嬰兒媽媽以母乳餵哺孩子，增強她們對母乳餵哺的信心及延長母乳餵哺期。

Project Objectives:
(i) 提升新手父母的能力及信心；
(ii) 集結跨界別力量，建立協作平台；
(iii) 推動關愛精神，支援有需要的家庭；
(iv) 提升家庭關係，以助延長母乳媽媽的餵哺期；
(v) 加強公眾對母乳餵哺的認識。

Methods / Implementation:
舉行「母乳好處及餵哺技巧」工作坊、「乳妳同盟」大使（指導員）訓練、「為母則強」社區互助小組、「乳妳同盟」大使支援服務及社區教育活動。

Results / Outcome:
本計劃接觸到：
(i) 126 位母乳餵哺的母親；
(ii) 30 名母乳餵哺指導員；
(iii) 84 名家庭成員；
(iv) 8 個合作伙伴，包括：香港大學護理學院、香港助產士學院、廣華醫院產科門診部、瑪嘉烈醫院婦產科、葵青及荃灣區母嬰健康院、媽媽牌同盟、明愛綠色小腳板及社會福利署。及
(v) 420 位公眾人士。

Conclusion:
本計劃旨在集結跨界別力量，為準新手父母及母乳餵哺家庭提供支援服務，為媽媽及其他家庭成員在餵哺的知識及照顧嬰兒技巧層面提供正確的資訊，同時亦承托媽媽在情緒層面上的需要，正面鼓勵及支持母乳餵哺媽媽，增強她們的信心，並鼓勵延長母乳餵哺期。

是次項目計劃共有 126 位新手父母及母乳餵哺家庭參加，計劃團隊同時招募了 30 名母乳餵哺指導員，透過不同的專業團體，為計劃參加者提供訓練及支援服務。當中有 90% 母親認同工作坊能增加對母乳餵哺的知識及技巧，並增強其餵哺母乳的信心，延長母乳餵哺期。此外，70% 母親滿意「母乳餵哺指導員」所提供支援服務。她們認同當遇上疑問及困難時，能夠有平台可以查詢，甚至有婦女義工進行家庭探訪，能協助改善母乳餵哺的實踐情況，有助她們舒緩身心壓力。另一方面，80% 指導員認同訓練內容實用，有助她們為計劃參與母親提供指導；而且她們所得的知識及技巧，能於日常生活中學以致用，甚至協助自己的親友，有助提升其自信心，同時加強人際關係。

是次項目計劃邀請到不同的單位共同協作，如：廣華醫院產科門診部、瑪嘉烈醫院婦產科提供平台，讓計劃團隊招募新手父母、母乳餵哺家庭參與計劃；同時邀請到香港大學護理學院、香港助產士學院的專業團隊，為計劃參加者提供工作員及訓練活動等。80% 合作伙伴認同社區支援計劃能支援母乳餵哺的母親，願意繼續共同協作，於社區內推動母乳餵哺的工作。與坊間其他團體稍為不同的一點，是計劃團隊致力鼓勵及邀請家庭成員一同參與活動，包括新手爸爸及祖父母。工作員希望增強家庭成員們的能力和參與，能為母乳餵哺媽媽提供正面的支持甚至是正確的支援。90% 家庭成員認同透過講座能認識母乳餵哺的好處，表示願意支持母親以母乳餵哺嬰兒，並協助及鼓勵其延長母乳餵哺期。

計劃團隊年度性地於社區內舉行社區教育活動，安排母乳餵哺大使於活動內協助向準新手父母推廣及宣傳母乳餵哺好處，同時向公眾人士推廣及宣傳母乳餵哺的資訊，以提升公眾人士對母乳餵哺的接受性。70% 回應的公眾人士認同增加對母乳餵哺的認識，表示支持及鼓勵身邊女性以母乳餵哺嬰兒。

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