

THE ECOSYSTEM OF COMMUNITY MENTAL HEALTH IN SINGAPORE

Dr David Teo Choon Liang, Dr Jared Ng, Dr Soo Shuenn Chiang, Dr Kwan Shuyi Charmaine,
Dr Tan Weng Mooi, Dr Ho Chih Wei Sally, Dr Peh Lai Huat Andrew

ABSTRACT

Community psychiatry focuses on the delivery of a coordinated programme of mental healthcare to a specified population. Mental illness is prevalent and a significant cause of morbidity in Singapore. In line with Singapore's drive toward right siting of care, community psychiatry will play a pivotal role in providing timely access to effective and affordable mental healthcare in the community. This paper provides an overview of the community mental health ecosystem and range of services that seek to integrate mental and physical healthcare with social and community support in Singapore. We discuss systemic challenges such as financing issues and patient confidentiality in relation to the important role primary care physicians play in enhancing community mental health. Finally, we propose solutions and future directions to develop an effective and sustainable ecosystem for community mental health in Singapore.

Keywords: Community, Mental Health, Psychiatry, Primary Care, Singapore

SFP2022; 48(4): 54-59

DR DAVID TEO CHOON LIANG

Consultant

Department of Psychological Medicine, Changi General Hospital

DR JARED NG

Senior Consultant

Emergency & Crisis Services, Institute of Mental Health

DR SOO SHUENN CHIANG

Consultant

Department of Psychological Medicine, National University Hospital

DR KWAN SHUYI CHARMINE

Associate Consultant

SingHealth Polyclinics – Tampines

DR TAN WENG MOOI

Director (inHealth), MOH Office for Healthcare Transformation

(Formerly Chief, Caregiving and Community Mental Health Division, Agency for Integrated Care)

DR HO CHIH WEI SALLY

Senior Consultant

SingHealth Polyclinics - Outram

DR PEH LAI HUAT ANDREW

Senior Consultant

Department of Psychological Medicine, Changi General Hospital

INTRODUCTION

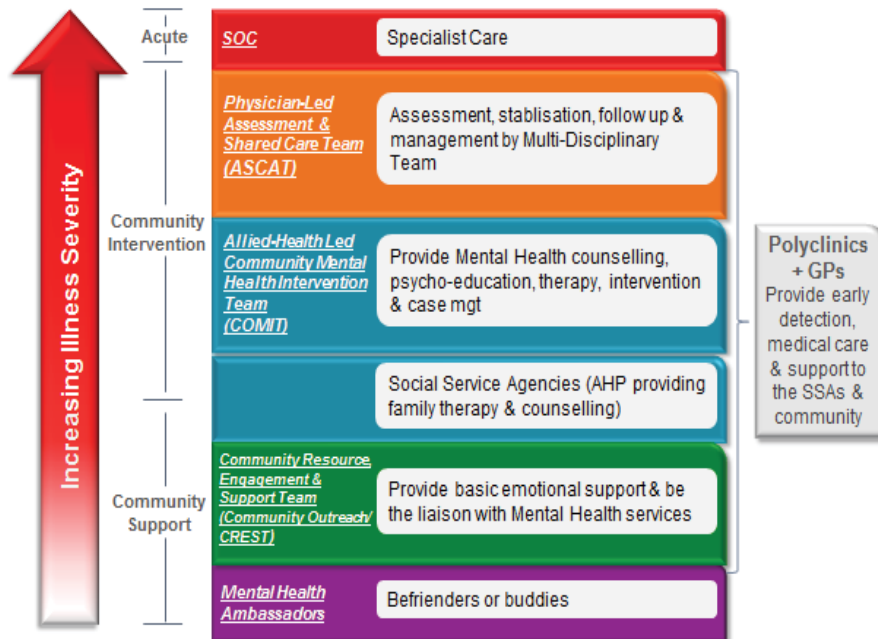
Globally, one in four people will suffer from a mental illness in their lifetime.¹ The Singapore Mental Health Study found that one in 10 Singaporeans will experience a mental illness in their lifetime.² However, more than three in four persons with a mental illness do not seek professional help.³ Mental illness can impair functioning in many aspects of life, ranging from activities of daily living to the fulfilment of social and occupational roles, making it a leading cause of disability worldwide.⁴ Consequently, bridging the considerable treatment gap is crucial to improving our population's health.

Community mental health programmes seek to reduce the stigma of help-seeking and improve access to and acceptability of care. Many mental disorders can be effectively managed in primary care settings.⁵ Integrating mental health services in the community facilitates early detection of mental illness and improves clinical outcomes such as quality of life.^{6,7} Primary care physicians (PCPs) form a crucial part of the community mental healthcare ecosystem. Familiarity with the functions, gaps and limitations of these services can help PCPs enhance the delivery of evidence-based mental healthcare in the community.

In this paper, we provide an overview of the community mental health ecosystem and the range of services that seek to integrate mental and physical healthcare with social and community support in Singapore. We discuss systemic challenges such as financing issues and patient confidentiality in relation to the important role PCPs play in enhancing community mental health. Finally, we propose solutions and future directions to develop an effective and sustainable ecosystem for community mental health in Singapore.

THE EVOLVING ECOSYSTEM OF COMMUNITY MENTAL HEALTH IN SINGAPORE

In the past two decades, in line with the increasing focus on mental health in Singapore, a raft of initiatives have been rolled out to build a stronger community mental health network in order to improve the care of people with mental illness in the community.⁸ The National Mental Health Blueprint (NMHB) was developed in 2007 with the goals of promoting mental health in the community, preventing mental illness, early detection, treatment, and rehabilitation of those afflicted by mental illness.⁸ The Community Mental Health Masterplan followed in 2012 to further build capability and capacity in the community sector to improve access to mental healthcare.⁹ Concurrently, a drive was made to integrate and grow community-based pre- and post-treatment support. In 2017, the Ministry

Figure 1: Ecosystem of Community Psychiatry in Singapore

of Health (MOH) announced a five-year Enhanced Community Mental Health Masterplan to drive collective efforts amongst different stakeholders to integrate health, social, and community support.⁸ To support these efforts, the Agency for Integrated Care (AIC) was commissioned in 2008 to coordinate care across the social and healthcare sectors. For mental health, it envisions a stepped care model progressing from community support and community intervention to acute care with increasing illness severity (see **Figure 1**).

Mental health ambassadors are the first tier of community support. These are members of the public with an interest in mental health who are trained to identify people with possible mental illness, befriend them, and encourage them to seek professional help. To enable this, frontline agencies, grassroots organisations, and volunteers are receiving training to increase awareness and recognition of common mental illnesses.

The next tier is Community Resource, Engagement, and Support Teams (CREST). CREST aims to increase public awareness of mental health through outreach events to educate residents and caregivers in their region and thereby promote recognition of early signs and symptoms of mental health conditions. They also provide basic emotional support, psychoeducation, service linkage, and follow-up for clients and caregivers to help them navigate the complex system of care. Additionally, CREST networks, engages, and coordinates mental health education for community partners such as governmental agencies. Together, they help to promote active ageing and preventive mental healthcare.

Over the past two decades, various SSAs and family service centres (FSCs) have developed mental health services and run Community Mental Health Intervention Teams (COMIT) – the third tier. COMIT are allied health professional-led teams

typically comprising clinical psychologists, family therapists, occupational therapists, case managers, and nurse clinicians. They provide psychoeducation, mental health counselling, and psychotherapy services to patients with mild to moderate mental health conditions in the community.

Specialist-led Assessment and Shared Care Teams (ASCAT) are a higher tier in the care continuum. They comprise hospital-based mental health professionals including psychiatrists, clinical psychologists, case managers, and advance practice nurses. ASCAT seek to provide timely specialist mental health assessment, management, and follow-up by a multidisciplinary team for more severely ill patients. Stabilised patients should ideally be right sited back to a lower tier of care in the community. Patients who fail to stabilise in a time-limited period are escalated to specialist clinics. ASCAT also helm capability building efforts, training PCPs, COMIT, CREST, and other community partners for their various caregiving roles in the community.

PCPs or general practitioners (GPs) play an integral role in the ecosystem of community mental health. In 2003, IMH started the GP-Partnership Programme (GPPP) with the intention of getting GPs involved in the care and management of stable patients experiencing early psychosis. Following the NMHB in 2007, GPPP was included as one of its integrated mental health programmes. The aim of the GPPP is to provide community-based mental health services to patients suffering from psychiatric disorders and support the right-siting of care to primary care.¹⁰ MOH is currently targeting for one in two polyclinics to have mental health clinics with the view that making care more accessible will help reduce the treatment gap.⁸

While the various public healthcare clusters have slightly different models of primary care mental health clinics, the common aim is to manage mild to moderate mental

health conditions in the community and only escalate severe or complex cases to SOCs. The National Healthcare Group (NHG) and National University Health System (NUHS) polyclinics have designated family physicians (FPs) with a special interest and training in mental health to regularly run Health and Mind mental health clinics in the polyclinics. The FPs receive six months of direct supervision from a psychiatrist from ASCAT, and thereafter phone consultation for case discussion from ASCAT. SingHealth Polyclinics combines training and service delivery.

FPs with previous training in mental health anchor the Health Wellness Clinics (HWC), which are in several polyclinics, and Family Medicine residents are attached to the HWC weekly for six months in the final year of their residency training. Psychiatrists provide either on-site or phone support during each HWC session. The latter approach of experience-based, longitudinal training in psychiatry has been demonstrated to improve Family Medicine residents' attitudes toward depression and psychiatry.¹¹ This is important as GPs in Singapore have been found to have more pessimistic views about treatment outcomes for mental disorders than psychiatrists.¹²

Various community-based specialised services run by IMH and some general hospitals targeting different age groups run alongside the above-mentioned services. Most of these are multidisciplinary teams comprising various combinations of psychiatrists, clinical psychologists, occupational therapists, medical social workers, community psychiatric nurses, and counsellors. Response, Early intervention, and Assessment in Community Mental Health (REACH) is a mental healthcare service that works closely with schools, SSA, and GPs to help students with mental health issues in the community.¹³ The Community Health Assessment Team (CHAT) is dedicated toward promoting awareness of mental illness, access to mental health resources, and providing screening for young people between the ages of 16 and 30. It collaborates with students and educational institutions to support young people with mental health concerns.¹³

For adults, the Community Mental Health Team (CMHT) is funded by the Ministry of Health under the NMBH. It supports adults between the ages of 18 and 65 with established mental illness with the aims of keeping them in the community for as long as possible and reducing hospital readmissions. It provides proactive case management for severe and persistent mental illness, as well as crisis intervention for patients and caregivers through a mobile crisis helpline, home visit team, and community psychiatric nursing.¹³

Restructured hospitals also run community programmes for the elderly. The Aged Psychiatry Community Assessment and Treatment Service (APCATS) is a community-oriented psychogeriatric outreach service run by IMH. It provides assessment and treatment to homebound or frail elderly who have difficulty accessing mental health services.¹³ It also helps to promote ageing-in-place in the community

by supporting caregivers. Changi General Hospital's (CGH) Community Psychogeriatric Programme (CPGP) and National University Hospital's Geriatric Psychiatry Outreach Assessment (G-RACE) provide similar clinical services in addition to training community partners to identify and support elderly persons with mental health issues. Some of these run dementia shared care programmes that aim to train primary healthcare professionals to be able to assess and manage dementia within the community.

Finally, in line with the Enhanced Community Mental Health Masterplan's push for better coordination of care, collaborative care programmes that integrate the various tiers of support have been piloted in various forms by the different healthcare clusters. CGH's Health Wellness Programme (HWP) is an example of a restructured hospital-led integrated care programme that provides community-based specialised psychotherapy services to patients with mild to moderate mental health conditions managed by PCPs, as well as psychiatric liaison support for the treating physicians.

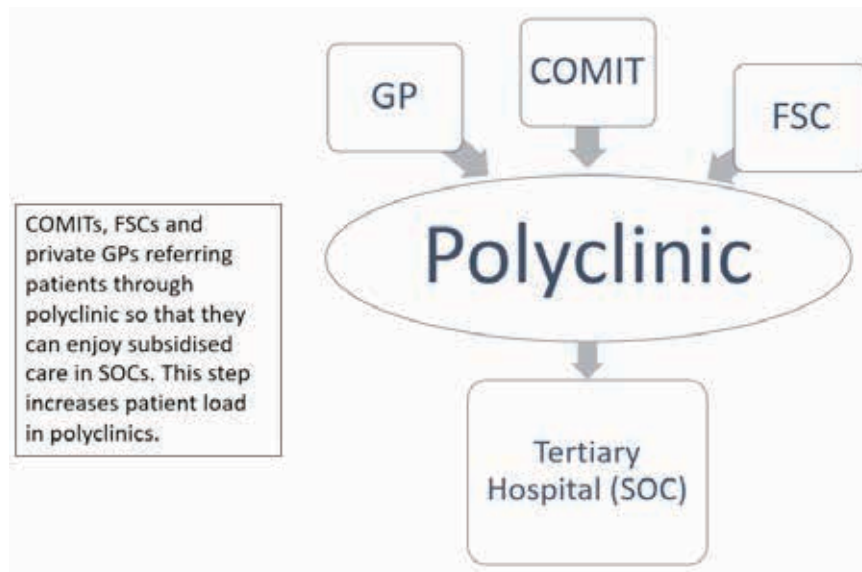
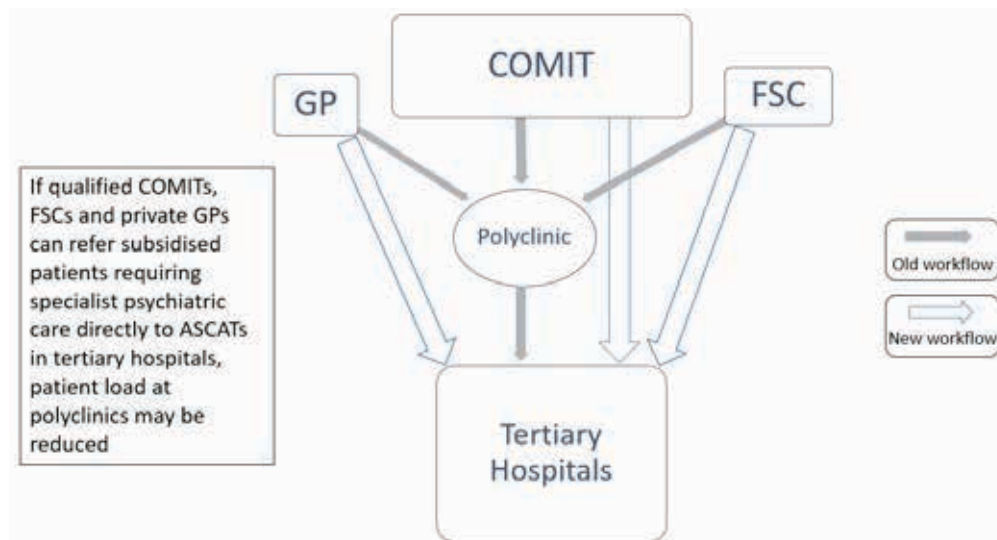
DISCUSSION

Singapore's evolving ecosystem of community mental health has significant merits. The stepped-care approach aims to right-site care and thereby promote efficient utilisation of mental healthcare resources. Patients with mild to moderate conditions not requiring specialist care have improved access to mental healthcare services in the community, allowing limited specialist resources to be reserved for the severely ill. However, despite the strategic focus on enhancing community services, care for people with mental illness is still largely delivered by specialist mental health services, and community mental health services remain underutilised. Systemic issues pertaining to healthcare financing, coordination of patient flow, data sharing, as well as established mindsets of healthcare service providers and users must be addressed for the ecosystem to function optimally.

Financing Issues

Singapore's healthcare system is regulated by the government to ensure quality and affordable basic medical services for all. Our unique public-private partnership in healthcare financing has to a large extent succeeded in balancing efficiency and equity concerns.¹⁴ Nonetheless, financing issues affect the functioning of our community mental health ecosystem.

First, our co-payment policy means help-seeking behaviour will be influenced by financial considerations. Data from recent years shows that most ASCAT patients were subsidised patients referred via polyclinics. Patients referred by community agencies such as CREST or COMIT need a referral letter from a polyclinic or government-approved GP to qualify for government-subsidised specialist services

Figure 2: Current flow of patients with mental health issues**Figure 3: Ideal flow of patients with mental health issues**

(see **Figure 2**). This is a key systemic barrier to timely access to specialist care for severely unwell patients. Besides, it contributes to the congestion in most polyclinics. Busy polyclinics can be bypassed if more severely ill patients can be directly referred by trained COMIT partners to ASCAT (see **Figure 3**), enabling timelier specialist care by reducing the number of agencies patients need to go through.

Second, Singapore's population is accustomed to receiving high quality, affordable hospital-based specialist care. Stable patients are reluctant to be discharged to primary care, often citing reasons such as having rebuild a therapeutic relationship with a new clinician and the marginal cost difference. With heavily subsidised specialist care under a variety of government schemes such as the Pioneer Generation Scheme, patients do not enjoy significant financial savings when they are right-sited to the community. Many do not mind the small incremental cost to continue seeing a specialist as compared to consulting a primary care mental health service or private GP. This results in a natural inclination to remain in specialist care. Value is often more

important than absolute cost to many patients in our increasingly affluent and educated society. Research is needed to help policymakers and service providers understand what patients and caregivers value and calibrate out-of-pocket costs to promote help-seeking in primary care.

Third, primary care financing should factor in more protected time for mental healthcare. Many PCPs are trained to care for patients with common mental illnesses such as depression. However, the sheer volume of patients they must see may deter them from managing psychiatric conditions, which is typically more time-consuming. Hence, PCPs are more likely to refer cases to specialists. Currently, some polyclinics have dedicated mental health clinics with longer consultation slots. Innovative financing policies are required to incentivise private GPs to follow suit in managing mental health conditions.

Data Protection, Patient Confidentiality, and Clinical Governance Issues

Clinical accountability and protection of patients' personal data and confidentiality is a key concern when doctors refer patients across organisations or outside the traditional healthcare settings. Stakeholders are often reluctant to share patients' clinical records because of concerns about confidentiality breaches. Duty of care and related liability issues are also important concerns when clinical information is communicated from one provider to another. These practical concerns must be addressed to avoid perpetuating the fragmentation of care.

Technology can be used to enhance collaboration and access to care. Telepsychiatry has been demonstrated to be feasible in a broad range of settings, with a variety of psychiatric treatments across different populations and age groups.¹⁵ Specialists can conduct case discussions through teleconferencing to support primary care and community workers in managing cases. A common information technology system would allow for better and safer collaboration if stakeholders can agree on how to adhere to the Personal Data Protection Act and safeguard medical confidentiality.

Capability-Building and Collaboration to Foster Trusted Partnerships

Patient flow and division of care between primary and specialist care settings needs to be closely coordinated to be more seamless and efficient. If patients with stable mental illnesses in tertiary care are not right-sited to primary care, tertiary care centres will accumulate large pools of follow-up patients and have insufficient bandwidth to receive patients who require specialist care in a timely manner. Different providers should have ongoing engagement with suitable patients about their treatment plans and raise discussions about right-siting. PCPs who are accustomed to referring patients with mental illnesses to specialist services need time to warm up to managing mild to moderate cases and be comfortable with referring their patients to COMIT for psychosocial interventions. Increased engagement between PCPs and COMIT can help familiarise PCPs with the services and capabilities of COMIT, while ensuring that patients who are referred are matched to the niche areas of expertise of COMIT.

Individual COMIT have different organisational priorities, strengths, and preferred client populations. Ensuring that COMIT are confident and competent in delivering effective mental health interventions for a broad range of common mental disorders is a challenge. Concurrently, niche areas of expertise of each COMIT should continue to be tapped for the benefit of service users. Besides capability-building within COMIT, with the emergence of primary care mental health clinics in the polyclinics, training should be extended to allied healthcare professionals who are involved

in the provision of mental healthcare in these settings. Competency frameworks for quality assurance among the various community mental health providers will further enhance confidence for right-siting efforts.

Collaborative care models between specialist and primary care services can be adopted to increase uptake of mental healthcare in the community. The collaborative care model (CoCM) is a multi-component, healthcare system-level intervention that uses case managers to connect PCPs, patients and mental health specialists.¹⁶ PCPs receive consultation and clinical decision guidance from mental health specialists such as psychiatrists and psychologists. This arrangement aims to improve routine screening for and diagnosis of mental disorders, increase use of evidence-based treatments, and improve clinical and community support for patient engagement in treatment and self-management. A systematic review by Thota and colleagues found that CoCMs are effective in achieving clinically significant improvements in depression outcomes and confer public health benefits in a wide range of populations and settings.¹⁷ A local study on the effectiveness of CGH's HWP demonstrated improvements in patient-reported outcomes such as the EQ-VAS, Patient Health Questionnaire-9, and Sheehan Disability Scale.¹⁸ This finding supports the viability of adaptations of the CoCM to Singapore's mental healthcare ecosystem.

CoCMs allow PCPs to have an added dimension of experiential learning to build upon their existing clinical experience, increasing confidence in recognising and managing mental illnesses. Complex cases can be raised for discussion with psychiatrists. PCPs can therefore refine their perspectives on the cases that would benefit from care in a tertiary setting and ensure that these patients are seen in a timely manner. Collaborating psychiatrists also benefit by appreciating challenges that PCPs face, increasing their effectiveness in building a sustainable model of care. This helps psychiatrists better identify patients who would benefit from being right sited to primary care.

A local adaptation of the CoCM that brings adjunctive specialist mental health consultation from the hospital to the primary care setting may circumvent some of the systemic challenges and boost Singapore's ability to deliver high quality, efficient, and affordable care. A paradigm shift to employ part-time psychiatrists in primary care to collaboratively spearhead shared care teams, and deploying allied health professionals or medical social workers with mental health expertise in a care manager role to link FPs with CRESTs and COMITs, may be effective in keeping patients right-sited in the community by averting the need for most patients to enter the hospital system.

CONCLUSION

Community mental healthcare in Singapore will play an ever-increasing role in improving the mental health of our population. PCPs are a pivotal component of our evolving ecosystem of community mental healthcare, and should thus be familiar with the functions, strengths, and limitations of the other component partners to optimally coordinate and utilise services. We need to consider systemic changes to address the barriers of healthcare financing, patient flow, and data sharing faced by patients, service providers, and administrators. Then might we build more effective collaborative care models for the ecosystem to thrive.

ACKNOWLEDGEMENTS

The authors would like to thank Mr Bernard Lee from the Ministry of Health and Ms Elaine Soh from the Agency of Integrated Care for their guidance and advice in the preparation of this paper.

REFERENCES

1. Steel Z, Marnane C, Iranpour C, Chey T, Jackson JW, Patel V, et al. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980-2013. *Int J Epidemiol*. 2014 Apr;43(2):476-93. doi: 10.1093/ije/dyu038. Epub 2014 Mar 19. PMID: 24648481; PMCID: PMC3997379.
2. Subramaniam M, Abidin E, Vaingankar JA, Shafie S, Chua BY, Sambasivam R, et al. Tracking the mental health of a nation: prevalence and correlates of mental disorders in the second Singapore mental health study. *Epidemiol Psychiatr Sci*. 2019 Apr 5;29:e29. doi: 10.1017/S2045796019000179. PMID: 30947763; PMCID: PMC8061188.
3. Subramaniam M, Abidin E, Vaingankar JA, Shafie S, Chua HC, Tan WM, et al. Minding the treatment gap: results of the Singapore Mental Health Study. *Soc Psychiatry Psychiatr Epidemiol*. 2020 Nov;55(11):1415-1424. doi: 10.1007/s00127-019-01748-0. Epub 2019 Jul 17. PMID: 31317246; PMCID: PMC7578124.
4. Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. *Lancet Psychiatry*. 2016;3(2):171-8. doi: 10.1016/S2215-0366(15)00505-2. PMID: 26851330.
5. Organization WH. mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP): World Health Organization; 2010.
6. Druss BG, Von Esenwein SA, Compton MT, Rask KJ, Zhao L, Parker RM. A randomized trial of medical care management for community mental health settings: The Primary Care Access, Referral, and Evaluation (PCARE) study. *Am J Psychiatry*. 2010 Feb;167(2):151-9. doi: 10.1176/appi.ajp.2009.09050691. Epub 2009 Dec 15. PMID: 20008945; PMCID: PMC3775666.
7. Vogel ME, Kanzler KE, Aikens JE, Goodie JL. Integration of behavioral health and primary care: current knowledge and future directions. *J Behav Med*. 2017 Feb;40(1):69-84. doi: 10.1007/s10865-016-9798-7. Epub 2016 Sep 30. PMID: 27696126.
8. Ong B. Inaugural Chee Kuan Tsee Lecture: Mental Health Care for the 21(st) Century. *Ann Acad Med Singap*. 2017 Jun;46(6):258-262. PMID: 28733694.
9. Ministry of Health Singapore. Community Mental Health Masterplan and National Mental Health Blueprint. 2020 [updated 6 January 2020. Available from: <https://www.moh.gov.sg/news-highlights/details/community-mental-health-masterplan-and-national-mental-health-blueprint>.
10. Lum AWM, Tan C, Wee J. Ten Years of Successful Collaboration between Psychiatrists, a Mental Health Institution and General Practitioners in Primary Care. *The Singapore Family Physician*. 2013 Feb;39(1):19-21.
11. Yan S, Wuan EKM, Peh ALH, Tay ATS, Ho SCW, Saffari SE, et al. Impact of Experience-Based, Longitudinal Psychiatry Training on Family Medicine Residents' Attitudes Toward Depression and Psychiatry in Singapore: a Prospective Study. *Acad Psychiatry*. 2019 Feb;43(1):6-12. doi: 10.1007/s40596-018-1006-3. Epub 2018 Nov 15. PMID: 30443864.
12. Nyunt MS, Chiam PC, Kua EH, Ng TP. Determinants of mental health service use in the national mental health survey of the elderly in Singapore. *Clin Pract Epidemiol Ment Health*. 2009 Jan 19;5:2. doi: 10.1186/1745-0179-5-2. PMID: 19152686; PMCID: PMC2651133.
13. Institute of Mental Health. Clinical Services, Community-based Services. 2012 [Available from: <https://www.imh.com.sg/clinical/>].
14. Lim MK. Shifting the burden of health care finance: a case study of public-private partnership in Singapore. *Health Policy*. 2004 Jul;69(1):83-92. doi: 10.1016/j.healthpol.2003.12.009. PMID: 15484609.
15. Shore JH. Telepsychiatry: videoconferencing in the delivery of psychiatric care. *Am J Psychiatry*. 2013 Mar;170(3):256-62. doi: 10.1176/appi.ajp.2012.12081064. PMID: 23450286.
16. Katon W, Von Korff M, Lin E, Simon G. Rethinking practitioner roles in chronic illness: the specialist, primary care physician, and the practice nurse. *Gen Hosp Psychiatry*. 2001 May-Jun;23(3):138-44. doi: 10.1016/S0163-8343(01)00136-0. PMID: 11427246.
17. Thota AB, Sipe TA, Byard GJ, Zometa CS, Hahn RA, McKnight-Eily LR, et al. Collaborative care to improve the management of depressive disorders: a community guide systematic review and meta-analysis. *Am J Prev Med*. 2012 May;42(5):525-38. doi: 10.1016/j.amepre.2012.01.019. PMID: 22516495.
18. Teo DCL, Yan S, Tan MSQ, Tirtajana I, Lim HK, Saffari SE, et al. Impact of an integrated care programme on patient-reported outcomes for mild to moderate mental health conditions in Singapore: a pilot study. *Singapore Med J*. 2021 May;62(5):230-234. doi: 10.11622/smedj.2021062. PMID: 34409472; PMCID: PMC8801867.