

Role of general practitioners in managing common mental-neurological and substance use (MNS) disorders in rural Nepal: a qualitative study from provincial hospital

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ABSTRACT

Introduction: Mental health disorders are the leading cause of morbidity worldwide and the prevalence ranges from 4.3% (China) to 26.4% (United States) annually. Depression and anxiety are the leading causes of disability. Major strategies of mental health care in remote Nepal have limited district level care. This study examines General practitioner's role in managing common mental neurological and substance use (MNS) disorders in remote Nepal with collaborative care model.

Method: This study employs qualitative approach at Pashupati Chaulagain Memorial Hospital. With purposive sampling technique, in-depth semi-structured interviews with 40 patients (N=40), 3 GPs (N=3) and 1 mental health expert (N=1) done. A 10 minutes long questionnaire comprising 15 items were asked and 30-minute interview was taken. Thematic analysis was carried out.

Result: Patients reported positive experiences of the model. Among 40 patients, mainly 50% comprised of depression, 25% of anxiety disorder, and 15% of Psychosis and 10% comprised of alcohol use disorder. Successful treatment, patient satisfaction, regular services, strong supply chain and counseling by psychosocial counselor were the main rewards in the model. The challenges identified were stigma, poverty, and poor infrastructure development, need of guidance and supervision of the program.

Conclusion: General practitioners play an important role in the provision of common mental health disorders in the remote setting of Nepal. A collaborative care model led by GPs have shown promising evidence in treating mental health patients effectively. Developing communication with GP-mental health professionals, organizing training programs for GPs, policy advocacy, motivational benefits and psychotropic medicine management can improve overall mental health care.

Keywords: Collaborative care model (CoCM), general practitioner (GP), mental neurological and substance use (MNS) disorders, Nepal

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INTRODUCTION

Mental health disorders are the leading cause of morbidity worldwide and the prevalence ranges from 4.3% (China) to 26.4% (United States) annually.¹ Depression and anxiety were the third and ninth leading cause of disability respectively as per the 2015 global burden of disease study.² Globally, 35-50% of people in developed countries and 76-85% people in less developed countries had not received any treatment in the past 12 months considering all cases of Mental, Neurological and Substance use (MNS) disorders which is a significant concern.³

The median number of psychiatrists per 100,000 population in Lower to Middle Income Country (LMIC) is 0.05 where as it is 8.59 in high income

countries.⁴ Nepal has 300 plus health facilities including hospitals and primary health centers with less than 200 psychiatrists and majority of them are practicing in urban setting.⁵ High treatment gap for mental illness has been identified by national health survey of Nepal (2020).⁶

World Health Organization (WHO) in 2008 initiated the mental health gap action program (mhGAP) in Nepal in primary health care to scale up for MNS disorders through training and supervision based on task-sharing approach.⁷ Due to high turnover of trained providers, lack of clinical monitoring and supervision of the program, lack of refresher training and of unavailability psychotropic drugs, health centers are not able to provide regular mental health services.

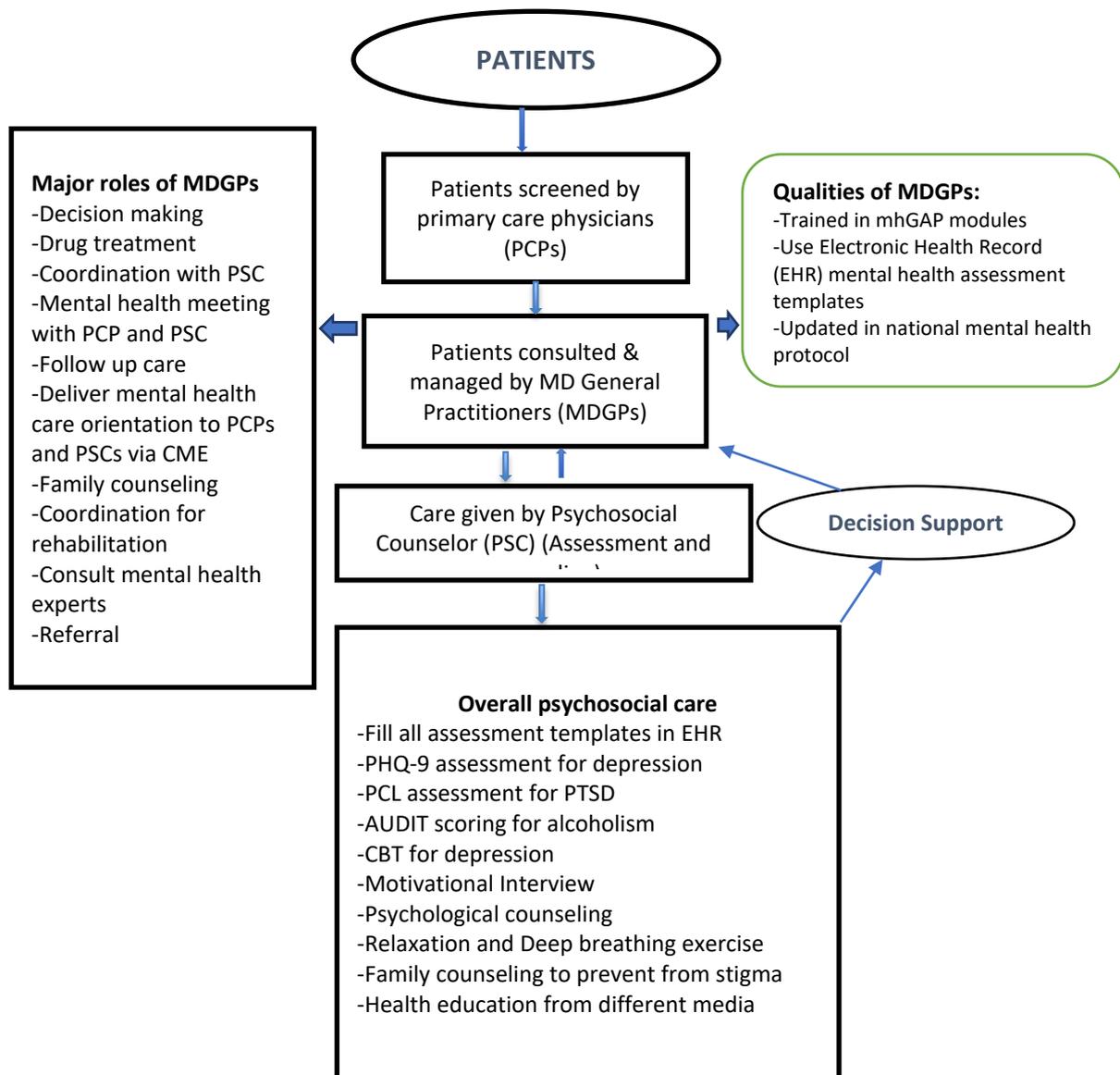


Figure 1. Conceptual framework: collaborative care model led by MDGP

General Practitioner (GP) residency is a three-year structured program in Nepal and the training includes internal medicine, general surgery, obstetrics and gynecology, pediatrics, anesthesia, emergency medicine and psychiatry.¹⁵ With the holistic care of GPs, they are recognized as major human resource to improve access to rural health care in Nepal. And, majority most of the district hospitals of Nepal are led by GPs and one study shows that almost 62% of GPs work outside the Kathmandu valley.⁹ In the current scenario, there are around 500 GPs working in Nepal

The prevalence of common mental disorders in mountainous district Dolakha is found to be 20.6% and the common mental disorders identified were depression, suicidality, anxiety, substance use and epilepsy in descending order¹⁰. Pashupati Chaulagain Memorial Hospital (PCMH) previously Charikot Hospital, one of the remote mountainous provincial level referral hospital of eastern Nepal, Dolakha, led by GPs since 2016 to improve the access to health care.¹¹

With the high volume of patients visiting outpatient department, PCMH implemented Mental Health Care (MHC) led by GPs since 2020 March. GPs leading MHC are trained in mhGAP program of WHO, and the team comprises Psychosocial Counselors (PSCs) of medical background with 6 months of psychosocial counseling training and Primary Care Physicians (Medical officers - PCPs). GPs regularly orient PCPs on common mental health problems (Depression, anxiety, substance use disorder, psychosis, epilepsy, dissociative disorder, somatoform disorder and other psychiatric illnesses) via regular weekly scheduled Continuing Medical Education (CME). All consultations of mental health disorders are done by GPs working at the hospital. PSCs uses mental health questionnaire tools such as PHQ-9¹² (Patient Health Questionnaire-9) to assess severity of depression, PCL¹³ (PTSD Checklist) score to assess severity of PTSD, and AUDIT¹⁴ (Alcohol Use Disorders Identification Test) to assess harmful use of alcohol. These scores are reviewed by GPs and then treatment is started in respective illnesses. Regular mental health review meeting is conducted at the end of every month to discuss challenges in managing mental disorders with PSCs and PCPs (Explained in Fig-1, conceptual framework-Collaborative Care Model Led by MDGP). Patients presenting with severe forms of mental health disorders (Severe psychosis, severe bipolar affective disorder, severe depression with

suicidality, severe forms of substance use disorders and mixed psychiatric illnesses) were referred to higher centers after initial management.

It is recognized that due to inadequate numbers of psychiatrists in Nepal, lack of clinical monitoring and supervision of the program, lack of refresher training and of unavailability psychotropic drugs, health centers are not providing regular mental health services. Major strategies like mental health gap action program (mhGAP)¹⁵ and Collaborative Care Model (CoCM)¹⁶ have limited mental health care at district level hospitals

Till date, there has been no published literature to explore the role of general practitioners in managing mental health diseases in Nepal. Mental health patients will get initial treatment with MHC led by GP at district level set up and collaborate for further referral. This study intends to seek for the understanding of current model of MHC led by GPs, opportunities and challenges of expanding and improving MHC at rural Nepal.

METHOD

Study design and settings: This qualitative study was conducted in PCMH from 2022 January to 2022 April. The hospital lies in Dolakha district and has total population of 186,557 and it is a rural area in Bagmati province which lies in Himalayan region.

Sampling strategy and sampling size: The sample population was selected through purposive sampling strategy. A sample size of 40 was selected in order to perform pragmatic sampling, 3 GPs were selected who were working at the same hospital and 1 mental health expert (psychiatrist) was selected for the interview. A 10 minutes long questionnaire comprising 15 items were asked and 30 minutes interview was conducted.

Eligibility criteria and participants: Inclusion criteria includes- patients treated at mental health unit of PCMH from 2020 January to 2021 December and treated by GPs were only included and patients having severe mental disorders and follow up cases of other hospitals were excluded.

Data collection and analysis: The evaluation was conducted using a cross sectional-qualitative study using semi-structured interviews. The qualitative data was examined and coded manually using thematic analysis as described by Nowell and Colleagues¹⁷. An inductive-deductive approach was used to create thematic framework. Key themes were identified and reviewed to elicit further

emerging codes and themes. Thematic saturation was considered once analysis of data did not offer any new information.

RESULT

Results are shown in two sections. First section (Table 1) consists of demographic characteristics of 40 participants, diagnosis of MNS disorders and second section consists of qualitative results of 40 participants, 3 GPs and 1 mental health experts.

Qualitative analysis:

The findings from the qualitative component of the questionnaire are presented according to the themes identified through thematic analysis. Table 2 provides main result summaries grouped into three themes namely rewarding practices, challenges and strategies for improvement related to role of general practitioners in managing common mental health disorders in remote Nepal.

Thematic analysis: The answers given in the qualitative section were brief, composing of short sentences, summarizing their opinions on mental health care of PCMH led by GPs. The frequencies of the answers given were calculated, and the themes were based on these frequencies. The main themes were identified as: Rewarding practices, Challenges and Strategies for Improvement of overall mental health care of PCMH and broadly national mental health care as well. From the main themes, sub-themes were identified based on their responses.

GP's treatment strategies of Hospital: There were many rewarding practices of the hospital for existing mental health care in the district. Some examples shared by our patients and health care workers were provision of free health care, availability of psychosocial counselor which is a unique and mostly responded answer, availability of trained GPs to manage mental health cases, maintaining privacy and confidentiality while treating patients, use of electronic health record system for data, provision of admission care of common MHDs by GPs, continuation of regular mental health CME led by GPs and critical mental health case analysis with brainstorming session with PCPs, community perception of many successfully treated cases of common MHDs and hospital having good trust in the community, psychosocial counseling, good follow up numbers of mental health patients and systematic referral system.

Challenges in managing mental health disorders:

In spite of significant improvement of our mental health care at our setting, we highlight some challenges identified in our study which has impeded overall mental health care in the district. They are stigma in the community, lack of family support, poor economic status of the patients, transportation, regular follow up and poor awareness campaigns on mental health disorders. From the institutional perspectives, frequent turnover of trained primary care physicians, poor supply chain of psychotropic drugs from government

Table 1. Demographic variables and diagnosis of patients

Variable	Frequency		
	Number	Percent	
Age	<18	2	5
	18-24	7	17.5
	25-33	14	35
	34-48	8	20
	49-64	6	15
	>64	3	7.5
Sex	Male	15	37.5
	Female	25	62.5
Diagnosis of MNS Disorder	Depression	20	50
	Anxiety	10	25
	Psychosis	6	15
	Alcohol use disorder	4	10
Ethnicity	Brahmin	10	25
	Chhetri	11	27.5
	Janajati	19	47.5
Educational status	None	14	35
	Primary	10	25
	secondary	9	22.5
	Higher	7	17.5

Table 2. Rewarding practices, challenges and strategies for improvement of the model

Rewarding practices	Challenges	Strategies for improvement
Provision of free health care	Patient's inputs: -Stigma in the community -Poor economic status of patients -Lack of family support	Stigma prevention programs in the community
Availability of psychosocial counselor		Establishment of separate mental health unit
Availability of trained GPs to manage mental health cases	-Poor awareness status of mental health conditions in the society	Policy level advocacy to improve mental health care
Maintaining privacy and confidentiality	-Transportation issues while travelling to hospital	Improve supply chain of psychotropic drugs
Use of electronic health record system for data	-Unavailability of free medicines.	Need of guidance of mental health experts to GPs
Provision of admission ,care of common MHDs by GPs	Inputs from GPs and Mental health experts: -Need of separate infrastructure for mental health care. -Frequent turnover of trained PCPs.	Establishment of GPs-mental health expert communication groups.
Regular mental health CME led by GPs and critical mental health case analysis with brainstorming.		-Lack of supportive organization for sick and stigmatized patients.
Many successfully treated cases and hospital have good trust of the community.	-Lack of guidance while treating severe MHDs.	Establishment of tele-psychiatry/ telemedicine to consult psychiatric cases regularly.
Good follow up numbers	-Inadequate numbers of mental health experts in the country	Motivate or incentivize to compensate work burden.
Systematic referral system	-No supervision and monitoring of mental health care at health facility. -Lack of incentives or motivation or recognition to PCPs/GPs or mental health workers from government.	-Increase numbers of academic productions of mental health experts. - Home visits by FCHVs

Note: MHDs- Mental Health Disorders, FCHVs- Female Community Health Volunteers

sectors, lack of availability of mental health experts in remote, unavailability of supportive organizations for stigmatized and unsupported patients from the family, lack of incentives or motivation or recognitions to overburdened health care workers and lack of any mechanisms of guidance to GPs or PCPs to manage severe forms of mental health disorders.

Strategies to improve mental health care: To further strengthen overall mental health care of the district, we have received some important themes. They were stigma prevention programs in the community, establishment of separate mental health unit at the hospital, work for policy level advocacy to improve mental health care, improve supply chain of psychotropic drugs from government sectors, need of guidance of mental health experts to GPs to better care mental health patients, establishment of GPs-mental health expert communication groups, organize regular mental health training and updates programs for GPs, PSCs and PCPs, establishment of tele-psychiatry/ telemedicine to consult psychiatric cases regularly, motivate or incentivize to compensate work burden of health care workers, increase numbers of academic productions of mental health experts and some participants also

suggested for home visits by health care workers, mostly by FCHVs.

DISCUSSION

This study is designed to cast the role of MDGP's in managing common mental health disorder in remote setting of Nepal and to provide insights into how the mental health care can be improved. This study is one of the few studies that are able to explore the role of MD general practitioners in collaborative care model of mental health care in remote Nepal. The findings of the study shows that general practitioner's role in managing common mental health disorders are very important in key areas of decision making, patient's satisfaction, providing effective treatment, improvement on quality of life of mentally ill patients, coordination with PSCs and PCPs, follow up care, systematic referral and to strengthen overall mental health care with coordination and collaboration of mental health experts.

Role of General Practitioners: Primary care physicians are the main providers of majority of mental health patients although psychiatric and mental health professionals play important role in the provision of high quality of mental health services. General practitioners are well positioned

to address the mental health diseases. Our study shows that MDGPs have better understanding of the existing mental health gap in terms of patient's treatment, improvement in quality of life, diversity and continuity of available services. In places where mental health professionals are not available, GP's role to lead collaborative care model (CoCM) is rewarding.

Our study in rural setting represents a more holistic approach to treatment than the traditional and consultative and referral models. GP's role has been noticed in treating referrals and common mental health condition with high satisfaction rates of our patients. Decision making, delivering mental health orientation to health care workers, systematic referrals and evidence based treatment strategies were the key roles in managing common mental health disorders by GPs.

In Nepalese context, General practitioner's role in mental health care is hidden. Our study has done qualitative focus on their roles as a rewarding care in patient's satisfaction. GP's role has been extended to lead regular CME sessions on mental health disorders, making systematic referral system, coordinating PSCs and PCPs for prescriptions but consultations with mental health expert was a lacking factor. GPs also found their role influence patients quality of life with their style of patient centered practice, listening and communication strategy with improved outcomes, similar to the study done by Barley et al¹⁸, Zantingee et al¹⁹ and Van der Pasch et al.²⁰

Collaborative care model led by MDGPs: The Collaborative Care Model (CoCM), supported by various organizations including the American Psychiatric Association, is a model for the successful integration of primary care and behavioral and mental health.²¹ CoCM holds substantial promise in addressing the mental health gap as demonstrated from at least 79 clinical trials.²² Our findings highlight that when CoCM is adapted and implemented in structured framework with dedication, this strategy made mental health care accessible at remote setting of rural Nepal with significant treatment improvement in depression, psychosis, anxiety and substance use disorders, as most common mental health problems.

This is a model anchored in a team based care steered by MDGPs in our context. It consists of four primary concepts: team drive, population focused, measurement guided and evidence based. The role of psychosocial counselors are the core component

of the care and has supported in decision making process for GPs. Many patients appreciated the effort of psychosocial counselors with 86.70% responses of "Helpful" report and a study done by Jordan et al²³ shows 91% of satisfying responses from the clients fulfilling their need of understanding feelings and problems.

A study done by Younes et al²⁴ provides the role of GPs in collaborative mental health care for further reductions in patient referrals to mental health experts. Our study significantly shows the roles of GPs are to make decisions on mental health patients, lead mental health meetings to brainstorm discussions on common disorders, 93.3% of patients shared their opinions as "effective" treatment to change their behavior, and quality of life.

A study done in remote Nepal by Rimal, et al²⁵ describes collaborative care model for depression and was led by mental health professionals. They have observed clinical improvement in depression comparable to controlled trials in high resource setting where as our study focused overall mental health care for common mental health disorders including depression, anxiety, psychosis, epilepsy and others.

Our study predominantly found that psychosocial counseling is a major factor of patient's satisfaction. A previous study done in Nepal documents that combination of psychotropic medication and psychosocial counseling helps in complete recovery of people with mental health problems.⁵³

Challenges

Stigma related to the mental health illness in the community, lack of family support, poverty, lack of proper infrastructure set up to treat and counsel mental health patients, lack of supporting organization or any government's direct funds to support stigmatized mental health patients in the community, lack of incentives or motivation to health care workers for overwork and less numbers of mental health providers were the major challenges observed in our study. Although staff turnover was not the issue in our case, but high staff turnover was reported in Africa and Asia, including Nepal²⁶. Our study has not much complaint on unavailability of psychotropic medicines but some previous studies done in Nepal shows the unavailability of psychotropic drugs in health facilities.^{27,28,29} These findings indicate that there is a need to strengthen overall psychotropic drug supply chain from national to the health post level.

In one study done in India, the availability of culturally appropriate materials in local language was thought to address stigma and mental health treatment gap.³⁰

Our study reports there is need of incentives/motivation or some forms of recognition while taking additional work burden. Lately scholars also argued that the quadruple aim (enhancing patient's experience, improving population health, reducing cost and improve work life of health care workers) is a fundamental element which helps other aims to be realized to improve work life of health care workers.³¹ In Nepali society, social stigma was the main factor preventing people from health facility for mental health treatment and follow up and negative cultural norms towards mental health care was responsible for reduced access and demand for mental health services.³²

The way-forward

Although there is a huge gap in mental health care in Nepal, tremendous developments have occurred over the past decade such as increased mental health professionals, scaling up of community mental health programs, development of training modules and task shifting approaches to primary care physicians, initiation of national mental health surveys. Few recommendations to improve overall mental health care of the district are highlighted, such as establishing GP- psychiatrist communications, or some forms of tele-psychiatry or telemedicine to guide MDGPs, improving monitoring and supervision of mental health care in the district by concerned authority, increasing recruitment of mental health experts in government facility, maintaining strong supply of psychotropic drugs at every facility and policy level strategic engagement to be done. Some similar recommendations are noted from study done in Nepal by Rai et al³³ and Upadhaya et al.³⁴

Our study shows the importance of regular training and CME for PCPs and PSCs in strengthening their capacity to assess mental health disorders. Similarly, the importance of regular mental health training and supervision in maintaining quality of mental health and psychosocial services in Rwanda, were found to be the potential model of integrating mental health care into primary health care.³⁵ Task shifting approach was implemented in Ethiopia where nurses were trained and supervised to provide drug prescription as well a community based mental health activities on awareness and education.³⁶

As we found that stigma was the predominant component in our study, along with anti-stigma programs, the involvement of recovered patients and their family members in mental health awareness raising and advocacy could help bring positive mental health reforms as it did in Zambia.³⁷

Our study lack collaboration between GPs and mental health professionals. Some studies demonstrate that GPs have initiated and provided better treatment if they have better communication and collaboration with mental health specialists.^{38,39}

CONCLUSION

MDGPs play an important role in the provision of common mental health disorders in the remote setting of Nepal. A collaborative care model led by GPs have shown promising evidence in treating mental health patients effectively. GP's ability shows management of variety of common mental health disorders including depression, anxiety, and somatization disorders.

To improve mental health care in remote Nepal, some important recommendations from our study are- case consultations with psychiatrists, policy advocacy for better mental health programs, frequent GP-mental health expert communication network, stigma prevention strategies at the community level, strong regular provision of supply chain of common psychotropic medicines, organizing regular training and clinical updates on mental health disorders for GPs and PCPs, case discussion with regular CMEs, tele-psychiatry consultations (when psychiatrists are not available on site), incentives for mental health workers to compensate work load, are required.

Recommendations

Despite limitations of smaller sample size, single site study setting, absence of comparison groups and lack of in-depth analysis of secondary data, our results can be used to inform the role of general practitioners in mental health widely in the country and similar studies can be done in the future with collaboration with mental health experts. Future research can explore more on GP's roles in managing specific mental health disorders and also severe mental health disorders under guidance of mental health experts. Assuming the psychosocial counselor's presence in every health facility, GP's role for sustainability of mental health care can be explored with multi-district hospital study.

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Conflict of Interest

None

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