ORIGINAL RESEARCH PAPER

Healthcare

MOHALLA (OR COMMUNITY/ NEIGHBORHOOD) CLINICS TO REINFORCE PRIMARY HEALTHCARE IN DELHI, INDIA: A SYSTEMATIC REVIEW BASED ON PRISMA 2020 GUIDELINES

KEY WORDS: Literature review, Mohalla clinic, Primary healthcare, PRISMA 2020, Universal health coverage.

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ABSTRACT

"Mohalla" in Hindi language means community or neighborhood. In July 2015, government of Delhi started establishing Mohalla (or community/neighbourhood) clinics (MCs) for strengthening primary healthcare services in Delhi, India. Primary objectives these clinics include making primary care accessible and affordable, reducing burden on tertiary care facilities etc. This article contains a review of past publications concerned with MCs to assess their performance. A systematic review based on PRISMA 2020 guidelines was carried out and database search was completed on 8 Feb, 2022. A total of 24 studies were finally selected for review. The review revealed that MCs have the potential to make primary care services accessible and can help in achieving universal health coverage. These clinics provide cost-effective primary care services and avoid overcrowding in big hospitals. MCs circumvent self-medication practices and are highly effective in low-income settings. To improve efficiency of MCs, it is suggested to strengthen health workforce and expansion of MCs beyond primary care. Additionally, there is a need of functional referral system along with launching telemedicine services at MCs.

INTRODUCTION

"Mohalla" in Hindi language means community or neighborhood. In July 2015, government of Delhi started an initiative to deliver equitable and affordable primary care services by launching community or neighborhood clinics called "Mohalla clinics" in Delhi, India. (1,2) The success of mobile medical units (MMUs) triggered the idea of Mohalla clinics (MCs). (14) The traditional method of MMUs is based on carrying the health workforce and necessary supplies in a vehicle for delivering health services to underserved and unauthorised areas. (11) MCs are considered as an ideal replacement of traditional MMUs as the latter being unsustainable in the long run. (16)

A Mohalla clinic provides free of cost consultations, medicines, diagnostic services etc. and employs a doctor, a nurse, a phlebotomist and a pharmacist. (7, 10, 19) MCs operate from portable structures called "portacabins" or rented spaces called "rented premises" with an establishment cost of around INR 2,000,000 per clinic. (11) A Mohalla clinic caters to a population of around 2500 households. (9) MCs operate during 8:00 a.m. to 2:00 p.m. (IST) everyday excluding Sundays and national holidays. (20) By February 2020, around 480 MCs were operational all over Delhi, India. (12, 20)

MCs were primarily built for the population of under-served localities who are reluctant to visit bigger facilities for healthcare. (10) Additionally, MCs are also supposed to have the potential to reduce self-medication practices. (17) The primary objectives of MCs include making primary care services accessible and affordable, reducing burden on big hospitals etc. (18, 19) Moreover, MCs are highly cost effective as cost of establishing around 2500 MCs is lesser than that of an institute like AIIMS(All India Institute of Medical Sciences). (10) The idea of MCs is based on "zero cost model" that is directed towards reducing patient out-of-pocket payments. (19)

This article contains a PRISMA 2020 guidelines based review of past publications concerned with MCs to assess their performance. The next sections explains the methodology utilized for this research. Thereafter, the "Results" section contains important findings and it is followed by "Discussion" section where these findings are discussed. The article ends with the section "Conclusion".

MATERIAL & METHODS

A systematic review based on PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis) guidelines (Page, et al., 2021). The PRISMA 2020 flow diagram is presented in figure 1. The literature search was conducted using the keyword "Mohalla clinic" (inclusive of all mesh terms) at the databases of "Google Scholar", "PubMed" and other miscellaneous sources. Publication period for selecting eligible studies was assumed to be 2015-2022. Additionally, the references of every eligible publication were carefully examined for possible inclusion in the review. The review was completed on Feb 8, 2022 at 11:25 A.M. IST. Initial search at the databases of "Google Scholar", "PubMed" and "other sources" resulted in 280, 33 and 16 documents respectively. All these studies were published during the period 2015-2022. Out of these 329 potential studies, 11 were removed due to duplication leaving 318 studies for review. These 318 studies were examined on the basis of title of the document, abstract and keywords and 266 documents were excluded. Remaining 52 studies were further screened based on purpose, context and design of the study. As a result additional 28 studies were removed and 24 studies were found eligible for review. The next section presents a brief overview and content analysis of these 24 studies.

RESULTS

After reviewing the potential studies, 24 studies met the inclusion criterion and found eligible for final review. Out of 24 eligible studies, more than 65% belonged to the period 2019-21 and more than 80% studies were either case study, communications or survey based studies. A break up of the articles according to year of publication and article type is presented in table 1. Table 2 presents a content analysis of these studies and contains a summary of titles, research type, research focus and findings. These studies have highlighted numerous advantages of MCs for strengthening primary healthcare system in Delhi, India. Additionally, these studies have also identified various challenges for MCs that require proper attention to improve the efficiency of Mcs.

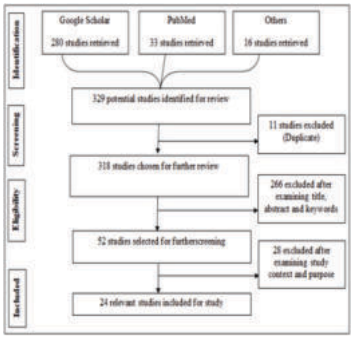

Figure 1: The PRISMA 2020 flow diagram (Page, et al., 2021)

Table 1: Distribution of articles grouped into type over time

Year Type of Article	2016	2017	2018	2019	2020	2021	Total
Case study		2			2	1	5
Commentary/Short communication	1	1	1	1	1	2	7
Personal interview based				1	1		2
Review					1	1	2
Survey based study	1	1	1	1	3	1	8
Total	2	4	2	3	8	5	24

Table 2: Content Analysis

Article	Type of study	Focus of the article	Findings
(Agrawal, et al., 2020)	Survey based	To find determinants of usage of MCs	Travel/waiting/consultation time and treatment effectiveness are important drivers.
(Bailwal, et al., 2020)	Interview based	Significance of MCs to tackle COVID-19	MCs can play an indispensable role in mitigating COVID-19 pandemic.
Basu & Barria, 2018	Commentary	Reforming health policy in Delhi	Suggestions include making MCs an integral part of health system and strengthening of health workforce of MCs.
(Bhandari, et al., 2017)	Case study	To examine the accessibility and quality metrics of MCs and hospitals	MCs were found to perform better on the metrics of accessibility and quality in comparison to public hospitals.
(Bhuvan, et al., 2019)	Commentary	Role of MCs in urban health program	MCs have the potential to provide basic health services of good quality to urban poor population.
(Das, et al., 2021)	Commentary	Providing telemedicine services through MCs	Integrating telemedicine with MCs is a low-cost approach for delivering health services to remote locations.
(Hazarika, et al., 2016)	Survey based	To examine the extent to which MCs satisfy health requirements of patients	MCs have the potential to expand beyond primary care services alone and ease the burden on bigger hospitals.
(Ismail, et al., 2018)	Survey based	Role of MCs for improving health accessibility of under-privileged	MCs were found unprepared to meet requirements of patients as well as health workforce and future MCs should address these gaps
Jha & Singh, 2019	Survey based	To examine the effectiveness of MCs	MCs can improve delivery of basic health services but they require improvements on the aspects of staffing and service delivery
Khanijou & Sundararaman, 2017	Case study	Role of MCs in urban healthcare	MCs are admired as these clinics are quickly accessible. However, policy makers are needed to provide careful attention to growth and sustainability aspects to make MCs a successful urban health model.
Lahariya C. , 2017	Editorial	Strengthening primary care in Delhi through MCs	MCs can assist in achieving universal health coverage in Delhi by strengthening the primary care system
Komal & Rai, 2017	Survey based	To examine the effectiveness of MCs	Mcs assist in saving expenses incurred on travel, consultation, medicines and diagnostic services. Improvement areas identified for MCs include infrastructure, number of medicines etc.
Kumar & Bardhan, 2020	Case study	Reducing primary care load on tertiary care hospitals	MCs have the potential to reduce overload of primary care on existing tertiary hospitals.
Lahariya C. , 2016	Commentary	Potential of MCs	MCs are highly cost-effective and are capable of increasing healthcare access
(Lahariya C. , 2020)	Review	Examining the accessibility, utilization and working of MCs	The under-served populations in Delhi are highly benefitted by MCs as these clinics are not only accessible but cost-effective as well.
Mishra, 2021	Survey based	Street-level bureaucrats of MCs of Delhi	Transformational leadership of street-level bureaucrats of MCs is required for sound governance and satisfaction of patients and health staff.
(Mukhopadhyay, et al., 2021)	Review	Motivations for AB-PMJAY	MCs are major catalysts for health schemes similar to AB-PMJAY in India and have the ability to move Indian health system closer towards universal health coverage.
(Parmar, et al., 2021)	Survey based	Factors impacting satisfaction of patients of MCs during COVID-19 pandemic	Identified factors: Accessibility, affordability, availability of health workforce, medicines, diagnostic and counseling services.
Patel & Pant, 2020	Survey based	To measure performance of MCs	MCs make primary care services accessible to patients at a very low cost and assist in reducing self-medication practices and patient travel time. Greater community participation is needed to improve efficiency of MCs.
Prashar, 2021	Case study	Service operations and quality of MCs	MCs have helped in improving accessibility and reducing patient out-of-pocket payments and reducing load on higher level facilities. Some efficiency improvement areas suggested are: ability to deal with emergencies, strengthening workforce, functional referral system and expansion beyond primary care.

Project Jaankari, 2020	Survey based	To examine the performance of MCs	Efficiency improvement of MCs requires expanding the extent of services along with renovating existing infrastructure.
(Sah, et al., 2019)	Survey based	Functioning of MCs	MCs assist in reducing load on hospitals, patient out-of-pocket expenses and travel time.
Seem & Nandraj, 2021	Commentary	MCs to strengthen urban primary care	MCs can help in achieving universal health coverage as they can deliver good quality primary care services in low-income settings
(Sethi, et al., 2020)	Survey based	Improving healthcare access through MCs	MCs provide economical and good quality primary care services and improve access to care.

DISCUSSION

From the review of 24 eligible studies, we found various advantages of MCs towards reforming the health system in Delhi, India. MCs are highly cost-effective and are capable of improving access to healthcare. (13, 25) MCs have the potential to provide basic health services of good quality to urban poor population (5, 24) and can assist in moving closer towards universal health coverage in Delhi, India. (14)

Accessibility and affordability are two major factors influencing patient satisfaction. (19) MCs have been found to perform better on the metrics of accessibility and quality in comparison to public hospitals. (4) MCs are admired by common public as these clinics are quickly accessible. (10) Moreover, MCs have made primary care services accessible to patients at a very low cost. (20) Therefore, these clinics have helped in reducing self-medication practices (20) as the under-served populations in Delhi, India are highly benefitted by MCs. (15)

MCs assist in saving expenses incurred on travel, consultation, medicines and diagnostic services. (11) Therefore, these clinics have the potential to scale down out-pocket expenses incurred by patients. (21, 23) Moreover, MCs provide decentralized access to primary care and ease the burden on bigger hospitals. (7) These clinics are considered major catalysts for health schemes similar to AB-PMJAY in India and have the ability to move Indian health system closer towards universal health coverage. (17) Keeping these motivations in mind, MCs should be made an integral part of the healthcare system. (3)

During COVID-19 pandemic, there are multiple challenges faced by a patient viz., availability of health workforce, medicines, diagnostic and counseling services. (19) MCs are capable of addressing these challenges and can play an indispensable role in mitigating COVID-19 pandemic. (2) Moreover, Integrating telemedicine with MCs is a low-cost approach for delivering health services to remote locations (6) and MCs and telemedicine together can handle such pandemics efficiently.

Although the model of MCs is promising but there are various challenges that cannot be ignored in order to make MCs a successful urban health model. Greater community participation is needed to improve the efficiency of MCs. (20) MCs require expansion beyond primary care along with renovating existing infrastructure. (11, 22) Some other efficiency improvement areas include, ability to deal with emergencies, strengthening workforce and having a functional referral system. (21) As far as governance is concerned, transformational leadership of street-level bureaucrats of MCs is required for satisfaction of patients and health staff. (16)

CONCLUSION

Universal health coverage requires a sound primary care system in place. MCs have the ability to enhance the functioning of primary care system as these clinics help the patients in overcoming geographical and financial hurdles in healthcare access. MCs are valuable for underserved populations and assist in reducing self-medication practices. MCs help in reducing excess load on big hospitals along with decreasing out-of-pocket expenses incurred by patients. Although, the model of "Mohalla clinic" has been an effective health reformation program in Delhi, India but there are various improvement areas to look-after for making this model sustainable in long run. There is a need to expand the extent of services along with renovating existing infrastructure to improve the efficiency of MCs. Additional improvement aspects include ability to deal with emergencies, strengthening workforce, functional referral system and launching telemedicine services.

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