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Carers' Perspectives on Home Medication Review by a State Hospital in Malaysia☼

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ABSTRACT

Introduction: Home Medications Review (HMR) is a continuation of patient care from healthcare facilities to their home to assess patients' pharmacotherapy by a multidisciplinary team. To improve the provision, we need to understand carers' viewpoints of the current service. This study aims to explore the carers' perspectives of HMR conducted by the medical outreach team (MOT) of a Malaysian hospital.

Methods: A qualitative study was conducted among primary caretakers who were involved in the HMR programme for more than six months. Subjects were recruited by purposive sampling from August to December 2019. In-depth interviews were conducted at patients' home, until data saturation. The audio-recording were transcribed verbatim, subsequently underwent thematic analysis.

Results: Nine carers were interviewed. All participants had a limited understanding of HMR as they claimed not being adequately counselled prior to admission to the programme. The convenience of not having to go to the hospital was perceived as the major benefit of the programme. Healthcare providers were welcomed during visits. Some carers have trouble identifying allied health professionals in the MOT. There was a concern about having to collect newly add-on medications from the hospital. Some participants suggested increasing the frequency of visits and hoping for more financial aid.

Conclusion: In this study, carers' comprehension of HMR was generally poor. All carers were satisfied with our HMR programme. However, several aspects need to be strengthened to improve patients' wellbeing. Despite HMR being temporarily replaced by telemedicine during the current pandemic, HMR remains relevant in the post-COVID-19 era.

Keywords: Home care services; Allied health personnel; Caregivers; Healthy ageing; COVID-19

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INTRODUCTION

Home Medication Review (HMR) service is a patient-oriented service involving the continuation of patient care from health facilities (either outpatient or inpatient settings) to their home to assess patients' pharmacotherapy (1). The World Health Organisation (WHO) and the Council of Europe have stressed the importance of including a multidisciplinary team in HMR as active members to benefit patients' health (2). Several studies have reported HMR has positive impacts on medication care, improving patients' health and potentially enhancing the relationships between different professions (3-7).

HMR programme was introduced in Malaysia by the Ministry of Health Malaysia in 2004 (1). Our hospital is the only public hospital in the state of Perlis, Malaysia. It was integrated as a programme under Hospital Outreach Team (MOT) in our hospital in 2010. The MOT consists of a multidisciplinary team of healthcare professionals (HCPs) comprising a doctor, pharmacist, nurse, physiotherapist, dietician, occupational therapist, and welfare officer. In our hospital, bedridden patients are the main group who receive this service.

This programme had been conducted for more than ten years in our setting. Hence, it is necessary to review and to better comprehend the carers' perspectives towards our programme. The awareness and understanding among caregivers for this extended hospital service have been limited. To improve the provision of HMR, we need to understand carers' viewpoints of the current service. Whilst the main principle of HMR is aligned with patient-centred care, active engagement of patients during decision making is very important (8). This is consistent with the plan of actions by Bergeson & Dean (9), which recommends a patient-centred care approach by improving access to various clinicians, increasing patients' confidence in self-care and agreeing on personalised treatment goals. To the best of our knowledge, there is no published study conducted to evaluate the carers' perspectives of HMR in Malaysia.

Therefore, this study aims to explore the carers' perspectives of HMR conducted by MOT in our facility, especially in terms of perceived benefits reported by patients and carers, difficulties faced during HMR which could assist in formulating room for improvement.

METHODS

This is a qualitative study by an in-depth interview conducted from August to December 2019 among carers of patients who were involved in the HMR programme for more than six months and carers aged 18 years old or above. Carers of patients who have discharged from the HMR programme and are unable to communicate in Malay or English language were excluded from this study. Potential candidates were recruited through purposive sampling through information-rich cases concerning the phenomenon of interest, in this case, patients and carers from various sociodemographic and medical conditions. They were contacted by telephone to brief on the study. Participant information sheet (PIS) was sent through WhatsApp messenger (WhatsApp LLC, Mountain View, CA) and implied consent was obtained. Only those who had given implied consent were asked their available dates and time to be visited for an in-depth interview which was independent of the routine HMR visit.

The interview was conducted once they agreed and signed the consent form. The interviews were audio-recorded and lasted between 15 and 30 minutes. Audio recordings were transcribed verbatim in the Malay language and were back-translated into English. Transcripts were subjected to inductive thematic analysis by all researchers independently. Discussions were conducted until consensuses on common themes were reached and no more new emerging themes. Ethical approval was obtained from the Medical Research & Ethics Committee, Ministry of Health Malaysia (NMRR-19-1330-48516) prior to the conduct of the study.

RESULTS

A total of nine participants were interviewed and are summarised in Table 1. The age of participants ranged from 22 to 70 years old. The majority of them had secondary education and were housewives. The participants experienced HMR for a period of one to five years.

Table I: Sociodemographic characteristics of the primary caretakers and patients' medical conditions.

Carer	Age	Education	Occupation	Year in HMR	Category: co-morbidity	No. of medication	Distance from the hospital (km)
C1	70	Degree	Ex-teacher	3	Stroke: Cerebral Atrophy	8	1.7
C2	69	Secondary	Housewife	5	Geriatric: MDD	8	4.8
C3	33	Secondary	Housewife	2	Stroke: haemorrhagic	7	1.4
C4	33	Secondary	Housewife	2	Neurology: young Alzheimer's	6	14.4
C5	22	Degree	Student	1	Stroke: AF2 thyrotoxicosis	6	21.0
C6	47	Secondary	Housewife	1	Geriatric: perforated peptic ulcer, hep. C	8	14.1
C7	65	Secondary	Housewife	5	Neurology: Spinal stenosis	14	4.7
C8	65	Secondary	Housewife	4	Stroke: haemorrhagic	8	19.9
C9	54	Degree	Businesswomen	1	Geriatric: Parkinson's, CCF, chronic lung disease	6	8.9

Theme 1: Understanding of the services

All participants in this study had reacted positively to the referral and recruitment in our HMR programme.

Subtheme 1: Details on the programme

The majority of the participants indicated they were unsure about the details of the medical outreach team and HMR at the start of the service as they only received a brief explanation. The participants particularly mentioned the intervals between home care visits.

> *Only told that the visit will be done every three months. (C1)*

> *We are explained that we will be visited every six months. (C3)*

Subtheme 2: Assumption on the reason for recruitment

When participants were asked the main reason for patient referral into this service, they assumed their reason.

> *Maybe it is quite difficult to bring the patient to the hospital. (C5)*

> *Maybe because he is an elderly patient. (C6)*

Subtheme 3: Healthcare professionals' recognition

Concerning their recognition of healthcare providers who attended the home visits, most of them can identify doctors, the pharmacist, staff nurse and physiotherapist based on experience. All participants were aware that these services involved a multidisciplinary medical team.

Doctor, MA (medical assistant), staff nurse, driver, from the pharmacy, physiotherapist. (C3)

A doctor, pharmacist, staff who wrote and record. (C4)

Not sure. What I know is doctor, then pharmacist, then that one Chinese doctor. (C5)

Got dietitian, physiotherapist aside from the MO (medical officer) and the nurse in charge. At one time, eight healthcare providers came, health and safety? Hmm… I am not sure, and pharmacist. (C9)

Theme 2: Perceived Benefits on the Services

All of the participants perceived home care visits to be beneficial.

Subtheme 1: Convenience of not having to go to the hospital

Participants applauded the services as they had difficulty going to the hospital, be it the patients or carers themselves.

Before this, my brother from Kangar (the state capital where the hospital is situated) needs to fetch my mother here, then go back to Kangar for her follow up at the hospital. (C5)

It's hard to get an ambulance here. (C7)

Before this, I also need to call an ambulance to bring the patient to the hospital for follow up. (C8)

Subtheme 2: Engagement with healthcare providers

Carers felt the interactions with HCPs are helpful.

I felt relieved knowing that there are people who want to take good care of her. (C4)

If he knows the date your team will come, he will look forward. (C9)

Subtheme 3: Gain information on medications

Participants could know more about the patients' medications in the HMR.

Initially, I do not understand about my husband's medications. Then she will explain to me. (P1)

She asked us about gastritis medications because there is a change of medications. Before this, mom took the one with orange packaging (ranitidine). (C4)

She was also told about the change of medications. There is one time, patient's BP drop. So, doctor change from 10 mg to 5 mg. (C7)

Theme 3: Difficulties Faced During the Programme

Generally, there were no major problems except a few having issues collecting newly add-on medications from the hospital.

I need to ask somebody else to bring me to the hospital to collect medicine. (C2)

I went to MOPD clinic to ask for a new prescription, but we are asked for many things that we do not know. (C4)

Theme 4: Suggestions for Improving the Service

Overall, all participants were satisfied with the service.

No. Everything else is ok, very good. (C1)

Until now, I'm satisfied. (C5)

I'm satisfied. I don't think I have any recommendations. (C6)

Subtheme 1: Frequent visit by physiotherapist

As most patients were bedridden, participants hoped for more visits from the physiotherapist.

If possible, we want a physiotherapist. Now, the patient does not want to exercise by himself. (C8)

Subtheme 2: Hope for more financial aids

As some participants were not well-off financially, participants also hoped for financial aid, bed and necessities.

If possible, we want a bed for our mom. (C5)

We want help from anyone for his diapers, wet tissue, dry tissue and other necessary things. Patient already got help from JKM (Department of Social Welfare), but still not enough. (C6)

Subtheme 3: Shorten visit interval

One participant was thinking about whether it could shorten the visit interval.

I think enough already. I'm satisfied. But maybe can shorten the visit interval and have direct communication. (C8)

DISCUSSION

Carers were chosen as the unit of analysis as patients had impaired cognitive function and/or could not communicate or cooperate in the interview. The poor understanding of our HMR was due to the little explanation by the doctors to patients, which was supported by other HMR studies (10). Having a good understanding of the programme will improve patients' preparedness and become actively engaged in decision making during the visits (11).

In terms of healthcare recognition, a respondent answered the presence of a medical assistant (MA) during the visit, which is not true as MA is not involved in the medical HMR. A carer's mentioning of 'Chinese doctor' is actually our physiotherapist. This proves that awareness of HCPs, especially allied healthcare professionals was still low.

For perceived benefits, other studies reported more perceived benefits from the participants, such as medication improvement, increased health-seeking behaviour and strengthened self-management (10, 11). This study has found that all participants faced no difficulties in this programme, supported by an Australian study as long as they are informed first (12). A prior phone call would alleviate their safety concerns (11).

In terms of difficulty faced in HMR, proper communication between healthcare workers and patients or carers is important to improve their knowledge to manage the health and keep the professionalism of healthcare workers (11). Medicines are dispensed on the routine visit by the pharmacist. However, problems arose when the visit was postponed due to several unavoidable reasons. Most carers also had transportation problems in our study. It emphasised the importance of a pharmacist who can be contacted to prepare the medications to be collected by carers or anyone assigned by the carers to collect personally from the pharmacist.

The majority of participants asked for a more frequent visit by a physiotherapist. There is no backup physiotherapist if she is on leave or has other commitments. Our participants were overall satisfied. Participants' satisfaction will serve as an indicator to measure health service quality (13). In other studies, intangible benefits would influence patients to participate in HMR (14), which would be appreciated by our current participants.

This study has limitation which cannot be generalised to the whole population of carers involved in HMR in the state of Perlis. However, generalisability is not the focus of qualitative studies.

The HMR services were stopped temporarily from March 2020 onwards with an undecided start date as the coronavirus disease 2019 (COVID-19) pandemic was still novel at that time. By using the SWOT (strength, weakness, opportunity, threat) analysis, instead of perceiving the current COVID-19 pandemic as a threat, it opened new windows of opportunities for clinicians to serve in new innovative ways.

Telemedicine has been adapted by clinicians in which patients and carers are followed up from time to time through short message service (SMS), WhatsApp and/or phone calls. Pharmacy Value Added Services (VAS) are encouraged to carers to ease medication refills, especially using the 'Medicine by Post' service. For medicines restricted by posting especially those that are temperature sensitive, carers can take their medicine in the nearest public health clinics from their home through the integrated drug dispensing system (locally known as SPUB) introduced by the Ministry of Health Malaysia.

Despite the COVID-19 situation that put HMR on hold and telemedicine had been adapted, HMR is here to stay in the post-COVID-19 era. This is supported by studies conducted in the pre-COVID-19 era that HMR is more beneficial than telemedicine due to the personal touch of face-to-face encounters (15). HMR services were resumed in March 2021 due to the constant demand by carers while maintaining telemedicine services.

CONCLUSION

Carers' understanding of HMR was generally poor. Difficulties encountered by carers may be due to their poor understanding, leading to miscommunication or misapprehension. Each multidisciplinary member must be introduced to patients and carers to ensure they feel sufficient with the service provided. The convenience of not having to go to the hospital was perceived as the major benefit of the programme. Carers were overall satisfied with the current HMR programme provided by the MOT in our setting. The study findings can be used to develop a questionnaire to assess quantitatively so more carers could be sampled to be more representative. HMR is proposed to be continued in the post-pandemic era by incorporating telemedicine for optimal patient-centred care.

CONFLICT OF INTEREST

The authors acknowledge that the publishing of this paper does not have any conflict of interest.

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