American Journal of Medicine and Medical Sciences 2021, 11(3): 236-239
DOI: 10.5923/j.ajmms.20211103.16

Optimizing the Use of the Emergency Care System by Implementing Modern Communication Technologies

Mirvarisova L. T., Nurmukhamedova R. A., Akbarova D. S., Mirvorisova Z. Sh.

Implementation Group of the Project "Improvement of EMF Services in Uzbekistan", Center for the Development of Professional Qualifications of Medical Workers under the Ministry of Health of the Republic of Uzbekistan

Abstract Many health and development programs use communication to change behavior and to improve people's health and well-being, including disease prevention, use of health services, nutrition, sanitation, and others. This article focuses on the processes that motivate people to accept and maintain healthy, responsible and rational changes in behavior and lifestyle, increasing their social responsibility associated with the attitude to emergency and emergency medical care.

Keywords Emergency medical care, Behavior change, Strategy

1. Introduction

Over the past few years, Uzbekistan has undergone massive transformative changes which modernize every sector and affect every citizen. A lot of effort is put into improvement of social sector, public administration optimization and healthcare reform. Government has planned complex measures for the indigenous improvement of the health care system through implementation of thorough and ambitious reform. The potential benefits of reform are immense, but the process is challenging, and it requires consolidated effort from institutional bodies and the public.

As it is stated in the Decree dated December 7, 2018 No. UP-5590 of the President of the Republic of Uzbekistan. Shavkat Mirziyoyev: “Over the past period, the system of providing primary health care has been improved … and its accessibility to the population has been increased. A unified centralized system of emergency medical care has been created, and the network of republican specialized scientific and practical medical centers is being improved …”. The decree outlines the concept of the health care system development in Uzbekistan with the program of measures for 2019-2025. Among the main directions of the healthcare system development, the Concept contains – improvement of the quality and accessibility of medical care. Under this direction, “further development of emergency and ambulance services, strengthening of its material and technical base (equipping with high- traffic cars, emergency vehicles and aircraft), establishing close cooperation with other first aid and non-emergency medical services” is foreseen.

Received: Feb. 28, 2021; Accepted: Mar. 21, 2021; Published: Mar. 28, 2021
Published online at http://journal.sapub.org/ajmms

Purpose: conducting a situational analysis at the national level, with the presentation of social, economic and other factors affecting the patterns of using EMA to promote behavioral changes in the population for the effective use of EMA in Uzbekistan.

2. Tasks

1. Study of the legal framework governing the activities of the EMA service.
2. The main goal of the Behavior Change Initiative is to distinguish between the use of ambulance and emergency medical care in urgent emergencies and the use of other health services, for example, outpatient facilities (visits to general practitioners and nurses, primary care centers and clinics) in cases, not requiring emergency assistance.
3. Recommendations for the development of an evidence-based behavior change strategy (BCS), as well as the selection and implementation of an appropriate set of BC interventions aimed at improving the behavior and practices of the population, as well as interaction between health care providers and community members.

3. Results and Discussions

During the last years, Uzbekistan has embarked on a strong vision and decisive action plan for healthcare system modernization including EMA services. The Uzbekistan’s government’s goal is to provide modern healthcare that meets international standards, which is an important prerequisite when it comes to further development for the most populous country in Central Asia.

Currently, the provision of EMA in the Republic of Uzbekistan is defined and regulated by several legal acts, i.e. the Constitution of Uzbekistan, the Law on the Protection of the Health of Citizens and several by-laws (also decrees of the President). Four decrees of the President during last 3 years are regulatory documents, which specifically address ed the EMA, mostly relating to investments and improvement of the EMA system.

The fundamental principle of the medical services in general, including EMA services provision is stipulated in the 40th Article of the Constitution of the Republic of Uzbekistan, which says that everyone has the right to qualified medical care.

Law on the Protection of the Health of Citizens (Part I, Article 8. State health care system) sets forth: Healthcare treatment and prevention institutions of the state healthcare system provide state-guaranteed medical care to the population free of charge. The volume and procedure of the provision of free medical care are established by law. Medical and other services in excess of the guaranteed volume of medical care established by the state are additional and are paid for by the population in accordance with the esta blished procedure.

At the moment there is no law or any other legislative document, which would specifically define if and when EMA (at the whole scope or partly) should be delivered by the State free of charge and in which cases should be paid by patient (for example, in the cases of so called *home calls* to the emergency line 103, when medical help by ambulance medics is provided in non-emergency cases at home and which normally should be provided by local general practitioner or visiting nurse). Both of these two primary care specialties are located in each populated area – in close proximity to the patient, their services are provided free of charge, and they also provide home services [1].

Due to unavailability of data on workload of primary healthcare facilities (e.g. size of the catchment area for visiting nurse and GP in the cities and rural areas, what is their actual workload, if people have possibility to receive help on the same day/night after the call by doctors on duty, etc.) it is difficult to say, if this option is effective and could be suggested for people instead of ambulance, or it is mere legally defined but practically unapplicable alternative. It is possible that people are calling an ambulance, due to the actual situation, when they cannot get the required treatment in polyclinics, at GP office or from visiting nurse on duty. Possibly, there could be other reasons why people call ambulance instead of going to their doctor, such as: need to pay gratuities for provided services, long waiting times, etc. For this reason, it is difficult to recommend usage of these primary healthcare resources as alternative for "*home callers*" as the main communication idea.

Communication, which is not coherent with the real situation, real practice could have opposite results and affect anger in community, if they will not receive help they need. Therefore, before taking concrete communication actions it is recommended to make a survey and find out actual reasons, validated on the selected cohort of the population (barriers for desired behavior). Such survey would prove our assumptions and logical reasoning with data, answering specifically why people choose to call ambulance instead of addressing primary healthcare providers as well as to find out more about real workload of primary healthcare providers and their possibilities to provide services for higher patients flow.

The abovementioned data show, that despite huge investments during the last few years in the technical base of EMA, insufficient attention is paid to the efficiency of EMA: "When organizing call centers in all regions, the task of increasing the efficiency of ambulance crews has not been solved, as evidenced by a significant number of home calls, a low proportion of hospitalizations and an actual lack of integration with primary care" [2]. Theoretically, information about ambulance visit afterwards should be delivered to patients' doctor, who himself or nurse on duty supposed to pay a visit and control development of patient's health issue, which is presently not always the case.

At the moment, an ambulance is forced to be send in respond to all calls without exception - there is no mechanism employed for triaging calls and legally the dispatcher has no right to reject a call. Law on the Protection of the Health of Citizens (Part III., Article 30) implies that citizens have the right to receive emergency medical care at any medical and health care institution. Medical and pharmaceutical workers are required to provide citizens emergency medical care. For avoiding the provision of emergency medical care, as well as for damage caused to the health of citizens, they are liable in accordance with the law.

In addition to that, the governmental institutions strictly react to any citizen complaints, whenever an ambulance was not sent, the dispatchers or ambulance workers do risk to lose their workplace and receive penalties.

Considering all the above mentioned, we can conclude that an important role in increasing number of EMA calls during last decade is due to the fact that ambulance services are forced to be provided to all calls without exception, since there is no actual mechanism for triaging calls by importance, degree of urgency, and the dispatcher is not permitted to reject the call.

Such situation allows citizens to misuse service 103 without any responsibility for ungrounded or false calls. The population often abuses this medical service, and they even call an ambulance instead of social services, in the extent up to anecdotical requests, e.g. to turn off the light in a lonely person's house, etc.

The increased demand for medical emergency services, i.e. ambulance is also justified by the fact that it is much easier and cheaper (meaning a guaranteed free service!) for the population to receive the medical services in this way, and such practice, as mentioned above, is supported by the state and is generally accepted: it is easier for the population to call an ambulance and get some kind of medical assistance, doctor's consultation at home and free medication, rather than going to the clinic, waiting in line, getting only a list of

recommended medicines, and not the medication itself. Free products and services have double effect: on one side, population is encouraged to use emergency medical services, on the other side, patients feel excited and irresponsible by getting something free of charge. Thus, free of charge medical emergency services may convey a social norm: we all should be doing this. And in our case, it turns out, when the services or goods are free, people may overconsume or waste the product [3] or misuse the services.

As a natural negative consequence of the behavior pattern described above, comes mistrust of EMA services, in particular ambulance services, i.e. "it is never here when it is needed!". As a result, people do not respect medical personnel and do not appreciate their work. A vivid example is the recent increase in the infliction of grievous bodily harm to emergency workers by relatives of patients, as well as low wages under difficult working conditions in EMA services, which is a consequence of the high turnover of medical personnel.

To solve these problems, the Ministry of Health and the Ministry of Finance of Uzbekistan have proposed the following measures [4]:

- to create a regulatory framework for triaging and redirecting the relevant portion of emergency calls to primary care, which will reduce the number of *home calls*, i.e. patients with chronic diseases, who do not need emergency medical care, and development of a legislation act on the provision of paid emergency services (for example: a paid service for one citizen after 10 calls a year).
- to develop a legislation act on guarantees of social and legal protection of medical workers in order to strengthen the legal and social protection of medical personnel and include in the legislation fines or other sanctions in case of violence against medical personnel.
- to start an information campaign targeted to the vehicles owners and drivers to promote responsible attitude towards EMA service transport, including ambulances, fair brigades and police.
- to introduce fines, as disciplinary measure for the drives. Also, it is recommended to equip all EMA cars with video recorders and send the fines based on the video footage.
- to introduce differential to payment scheme of medical personnel, considering the level of qualifications, experience, intensity and other defined KPIs, with raising the level of salaries towards those in the private sector. This would highly increase the prestige and attractiveness of the work and minimize the staff turnover.

Some of these measures may require additional thought and extra cautiousness, as for example the logical limitation of 10 legit ambulance calls per person annually shall consider take into consideration certain exceptions, i.e. for special patient groups - patients with epilepsy, exceedingly high hypertension, etc.

As known, many health and development programs use behavior change communication (BCC) to improve people's health and wellbeing, including prevention of diseases, utilization of healthcare services, nutrition, sanitation and others. BCC is a process that motivates people to adopt and sustain healthy, responsible and rational behaviors and lifestyles.

A comprehensive BCC approach explores factors that influence multiple levels - individuals, families, community members, communities as a whole, health care providers, and policymakers — to devise a maximally effective behavior change strategy.

The development of an evidence-informed BC strategy, and selection and implementation of an appropriate set of BC interventions aims at improving population's behaviors and practices, as well as interactions between health service providers and community members.

A well-coordinated, timely and strategic BC strategy and implementation plan will contribute in managing population's expectations during illness and emergency situations and will optimize the required healthcare services response efforts. Affected communities can be engaged and supported to make the required changes, negative factors can be detected early and barriers to desired behaviors can be identified.

Behavioral change activities within the EMA P will build upon past achievements in forming awareness aimed at informing the public about EMA in Uzbekistan, its role and importance, at the same time aiming to increase buy-in and personal responsibility of population for responsive usage of EMA and particularly ambulance services. Communication campaigns will also target increasing adoption of public health services usage behaviors among various groups of populations: rural and urban households.

The developed strategy of behavior change should be based on the following fundamental principles:

1. **Employing evidence-based communication:** Evidence based programming is a scientific approach to communications whereby decisions made throughout the project cycle is supported by data, resulting in reduced speculation and guesswork. This Strategy is based on statistical and survey data conducted in Uzbekistan on the behavioral determinants - factors that can facilitate or inhibit behavior - for each of the key health behaviors. Communication objectives were then developed for the key determinants. Although we have to admit that the available data were limited, and it is highly recommended to perform high quality population survey on the behavioral determinants.
2. **A BCS should also, ideally, be guided by a behavior change theory framework.** It can be used to inform the analysis of existing formative research studies, can help to prioritize behaviors to be changed and the populations to be targeted and finally, can improve the effectiveness of interventions and identify

the appropriate indicators to monitor.

3. **Prioritizing behaviors:** Given the various reasons and backgrounds of EMA usage behaviors, the Strategy will focus on the ones, identified, and proved by data collected in the situation analysis.
4. **Leveraging existing resources:** Given the past and current effort which has already been done to develop BCC materials for raising awareness and prepare ground for BC in Uzbekistan, our strategy evaluates and provides recommendations based on the work done by now.
5. **Utilizing technology for message dissemination:** In light of the high coverage of mobile phones and increasing coverage of internet in Uzbekistan, efforts should be made to leverage mobile phones as a communication channel to market primary healthcare services, and disseminating BCC messages to patients.

REFERENCES

[1] Law "On the Protection of Citizens' Health", Part III, Article 29.

[2] World Development Report 2015. Health. Chapter 8.

[3] Report of the Deputy Director of the RSCEMP for medical work for 2019 2020: results of activities and tasks for its improvement.

[4] Resolution of the President of the Republic of Uzbekistan No. PP-3973 dated October 16, 2018 "On measures to improve the ambulance service in the Republic of Uzbekistan."

Copyright © 2021 The Author(s). Published by Scientific & Academic Publishing
This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/