



Multidisciplinary Teams in Healthcare

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SUMMARY

Introduction: Making good teams are the base of management in general. A multidisciplinary medical team (MDT) is a group of health and care staff who are members of different professions and organizations (e.g. GPs, social workers, nurses), that work together to make decisions regarding the treatment of individual patients and service users. MDTs are engaged in both health and care settings.

Methods: In this paper, the authors present information and views from valid professional-scientific sources (papers, books, brochures) about the basic principles and development of teams for medical healthcare that contribute to the development of the implementation of new concepts in health management (MH) for and against teamwork in this areas.

Topic: A successful team relies on a well-composed human resource. Each of the member of team added their knowledge and skills to the prescribing process, so that decisions about the best therapy option, for example choice of antibiotics and dosages were made based on more evidence from the medical literature than if they were made by just one person. Clinical pharmacologists will certainly be necessary participants in such teams, because their knowledge of pharmacokinetics, side effects and efficacy of the selected drug is required. For successful personnel management in a team that is able to handle all the challenges and obstacles that multidisciplinary teamwork brings, appropriate education and professional skills of the main manager are required. An example of MDT in a modern therapeutic approach is the collaboration between hospital pharmacology and hospital transfusion. Teamwork has its advantages and disadvantages that a good leader can use or overcome.

Conclusion: Multidisciplinary health teams often have the problem of immeasurable investments in order to achieve satisfactory therapeutic results. The formation of multidisciplinary teams in healthcare is a mandatory type of work in a successful healthcare institution. In addition to continuous medical education, it is desirable to introduce education for work in all positions in the health team. The most important goal of MDT is the well-being of the patient, which requires high ethical and professional qualities of the staff.

Keywords: Multidisciplinary Teams, Healthcare, Education, Success in Medical Treatment, Health Management

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INTRODUCTION

Making good teams are the base of management in general.

A multidisciplinary medical team (MDT) is a group of health and care staff who are members of different professions and organizations (e.g. GPs, social workers, nurses), that work together to make decisions regarding the treatment of individual patients and service users. MDTs are engaged in both health and care settings [1, 2, 3].

Teamwork in the field of drug administration has gained a new dimension in recent decades, first of all with the introduction of antibiotic stewardship into practice. Clinicians have realized that prescribing antibiotics for hospital patients, who usually have infections caused by multidrug-resistant strains, is a very complex matter that one person can hardly perceive entire problem and make an optimal decision. That's why it started with the organization of teams for prescribing antibiotics in complicated clinical cases, which usually included an infectious disease specialist, a microbiologist, a clinical pharmacologist and a specialist responsible for the entire course of patient treatment.

It is only in the last few years that the management of hospitals and healthcare units in general has been perceived as organizational unit that functions through measurable outcomes. In order for this way of management to take root, it is necessary for the management and the health management to understand that the outcome in healthcare is not even close to the same as in other areas of human activity. What is immediately clear to educated managers, who have encountered resistance during implementation in healthcare? Logically, it was quickly implemented in the private healthcare sector. Teams cannot be universally composed. Teams should be formed to meet the needs of a given healthcare facility [4]. The authors decided on this topic because of the need of the modern hospital system to raise efficiency and awareness of the necessity of teamwork.

METHODS

In this paper, the authors present information and views from valid professional-scientific sources (papers, books, brochures) about the basic principles and development of teams

for medical healthcare that contribute to the development of the implementation of new concepts in health management (MH) for and against teamwork in these areas. The authors, after many years of work experience, consider the need to analyze the role of multidisciplinary teams in improving the results of treatment outcomes and facilitating the work process. This is academic (non-commercial) paper written with the intention of bringing the development of a new approach to work closer to health professionals.

TOPIC

The team is composed of the team manager (leader) and team members. Each team member has a role that is defined by education and the current needs of work tasks. Team management encompasses multiple behavioral patterns in order to help people and achieve a collectively satisfying result. If it is about managing a company - a hospital, it is about strategic behavior to renew and continuously develop a health institution. A successful team relies on a well-composed human resource. Each of the member of team added their knowledge and skills to the prescribing process, so that decisions about the best therapy option, for example choice of antibiotics and dosages were made based on more evidence from the medical literature than if they were made by just one person. In the last few years, the idea of „medicines stewardship” has been mentioned more and more often, which actually suggests that for the prescription of other types of drugs for complex patients, teams should be formed to make optimal decisions. Clinical pharmacologists will certainly be necessary participants in such teams, because their knowledge of pharmacokinetics, side effects and efficacy of the selected drug is required [5]. Behavior patterns for achieving managerial efficiency are:

- Be supportive of other team members
- Work with clear guidelines
- Accept different perspectives, both good and bad, in the treatment process
- Work quickly to solve problems

In the past, managing an institution was called management and meant providing technical support and clear directions. The principle was based on the traditional industrial economy with command and control, within which managers exclusively focused

on achieving maximum productivity values. In such organizations, leaders had 3 roles: planner, director and controller. Planners developed a strategy with a business plan, directors assumed responsibility and controllers checked whether the employees worked in accordance with the announced plans of the institution [4]. For successful personnel management in a team that is able to handle all the challenges and obstacles that multidisciplinary teamwork brings, appropriate education and professional skills of the main manager are required [6].

Team Manager education requirements

Team managers usually study business, psychology, or communication, and in Serbia they have an education in the main activity of the institution, for example, the surgical institution and the teams within it are managed by surgeons, etc. Interdisciplinary healthcare teams have the potential to significantly improve the overall health of the patient and enhance the experience of the individuals in the team, especially with seriously ill patients. Research shows that the most important focus is on team relations and the application of complex system theoretical achievements in the development of teams [7]. While worldwide, there are educations for managers of different teams, in Serbia, team leaders grow from the ranks of experts in a given medical field. The authors of this paper support mandatory education specifically for the team-leader position, bearing in mind the possible burn-out syndrome because it is a demanding position. Successful team management requires knowledge of a number of skills in order to overcome obstacles related to the work task, objective circumstances and personal characteristics of the team members [8, 9]. In order for teams to realize all their potential, it is necessary to have members who also have a personal need for development, although, usually, success is mainly linked to the quality and strength of the institution. The only completely unproductive characteristic of a team member, that is, a personality characteristic, is that he/she is not aware of his ignorance and will not learn [4].

The development of multidisciplinary teams (MDTs) is imperative for the advancement of the health profession. MDT consists of a group of health workers and associates who

may be from different professional organizations and specializations (general medicine (GP), social workers, nurses, different medical specialties) who, through joint work, make a decision about an individual patient or user of the service. MTD is useful at all levels of healthcare [3]. MDT for one patient consists of at least one professional of different needed educational profiles. Health professionals working in such teams agree, collaborate and communicate with each other to provide the patient with the best treatment option. In this way, a single-person responsibility in the treatment is overcome so that the whole team of health workers works for the benefit of the patient. Teamwork cancels the classic hierarchy and centralized power of the health organization, giving more space for the work of healthcare practitioners [10].

The benefits of teamwork are: it allows young doctors to express their opinion and, with the presence of experienced doctors, not to make mistakes and to learn. This allows for spontaneity in cooperation and achieves a better healthcare effect [1].

An example of MDT in a modern therapeutic approach is the collaboration between hospital pharmacology and hospital transfusion. Patient blood management (PBM) is a multidisciplinary multimodal patient-centered approach designed to minimize the use of allogeneic blood components in order to improve the clinical outcome of patient treatment. PBM consists of 3 main pillars: 1) increasing red cell mass including clinical-pharmacological correction such as erythropoiesis stimulating agents (ESA), iron and vitamin supplements and optimizing the time for surgical intervention in relation to achieving the required hemoglobin value 2) minimize blood loss through an adequate selection of surgical and anesthetic techniques, treatment with tranexamic acid (TXA) and autologous blood salvage; 3) increasing the patient's tolerance to anemia through maximum improvement of pulmonary and cardiac function, optimizing ventilation, oxygenation and restrictive application of blood components [11, 12, 13, 14]. Hospital pharmacology is a supportive branch of medicine that improves the outcomes of treatment and can sometimes anterograde indicate a change in the diagnosis of the disease.

Clinical pharmacology is a medical discipline created in the 20th century, it implies

the most effective application of medicine, and it could be considered the culmination of all therapeutic approaches in medicine, or simply in the preservation of human health. It is a field that spontaneously appeared within the medical science and from the very beginning its unique perspective is in the unity of practice and science. It is recommended to consult a clinical pharmacologist in PBM with the aim of achieving a favorable outcome, i.e. recovery of the patient, with as few medications and therapeutic interventions as possible [2]. In practice, blood transfusion and drugs given to the patient can have interactions and side effects, so caution and teamwork are required. The recommendation of clinical transfusion is to apply transfusion according to the restrictive indication regimen, then use all types of autologous transfusion (predeposit, normovolemic hemodilution and intraoperative cell salvage) when clinical conditions and the patient's condition allow. By team decision, ESA pharmacological preparations (Fe, B12, Folic acid, Erythropoietin) can be used to correct anemia; to control bleeding use Tranexamic acid, and Desmopressin. Transfuse the patient only if the hemoglobin is <60 g/L, with the exception of CVD patients in whom the decision is related to cardiopulmonary clinical tolerance. In doing so, always use leukodepleted blood components, which reduces the occurrence of side effects and opens up the possibility of collaboration between clinical pharmacologist and clinical transfusionist. Current data and experience support that in healthy patients without coronary artery disease (CAD), the restrictive trigger for transfusion is Hb 70–80g/L is safe, and in patients with CAD it may be higher. The conclusions of many studies are the recommendation that the trigger for transfusion should be 80 or 90 g/L [15].

Faster and better recovery of the patient is what every doctor recognizes as the main motive for the decision to work, however, the advantages and disadvantages of teamwork in the health system are numerous.

Advantages and disadvantages of teamwork

The advantages of multidisciplinary work are: Improved patient responsiveness, overall satisfaction, improved efficiency and increased effectiveness, shared responsibility for the hospital team, reduced errors, reduced employee

stress for team members, quicker recovery for patients [16, 17].

Disadvantages of teamwork: Insufficiently recognizable results of „solo players” of doctors, blocking of the development of therapeutic approaches due to competition within the team, conflict situations of „dissatisfied team members”. Teamwork can be compromised by the participation of conflict-causing team members, including negative dominant or unpleasant members [18]. Training in handling different personalities in a team can help make even these interactions productive [19, 20, 21, 22]. In the recent years, working from home has become an interesting variant within the general social situation, as well as a financially more convenient variant for the employer, carrying with it certain characteristics [23].

In addition to the aforementioned education and organization, perhaps the most important part is the preparation of team members on how to deal with stressful situations and challenges. An example of this is learning how to point out a perceived challenge and inconsistency/error in work while maintaining patient safety. For example, for an important operation, the leading surgeon is missing, some of the equipment is missing, or something goes wrong during the operation. Participants and observers must have a high ethical and collegial level in order to handle this kind of situation. Conscious decision-making will help everyone stay „on their feet” and make the outcome the best possible [24, 25]. For the end of all working types, the final aim is to work close clinician pharmacologist, clinical transfusionist, all physicians, and nurses, to ensure safe and effective drug therapy for patients. Clinical pharmacologists will certainly be necessary participants in such teams, because their knowledge of pharmacokinetics, side effects and efficacy of drugs is a necessary contribution [5].

Each of the aforementioned experts added their knowledge and skills to the prescribing process, so that decisions about the choice of antibiotics and dosages were made more based on evidence from the medical literature than if they were made by just one person. In the last few years, the idea of „medicines stewardship” has been mentioned more and more frequently, which actually suggests that for the prescription of other types of drugs for complex patients, teams should be formed

to make optimal decisions. Clinical pharmacologists will certainly be necessary participants in such teams, because their knowledge of pharmacokinetics, side effects and efficacy of drugs is a necessary contribution.

CONCLUSION

Multidisciplinary health teams often have the problem of immeasurable investments in order to achieve satisfactory therapeutic results. The formation of multidisciplinary teams in healthcare is a mandatory type of work in a successful healthcare institution. In addition to continuous medical education, it is desirable to introduce education for work in all positions in the health team. The most important goal of MDT is the well-being of the patient, which requires high ethical and professional qualities of the staff.

CONFLICTS OF INTEREST

All authors declare no conflict of interest.

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Multidisciplinarni timovi u zdravstvu

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KRATAK SADRŽAJ

Uvod: Komponovanje dobrih timova je osnova menadžmenta uopšte. Multidisciplinarni medicinski tim (MDT) je grupa zdravstvenog i medicinskog osoblja koji su članovi različitih profesija i organizacija (npr. lekari opšte prakse, socijalni radnici, medicinske sestre), koji zajedno rade na donošenju odluka u vezi sa tretmanom pacijenata i korisnika usluga. MDT se bave svim zdravstvenim ustanovama.

Metode: U ovom radu autori iznose informacije i stavove iz važećih stručno-naučnih izvora (radovi, knjige, brošure) o bazičnim principima i razvoju timova za medicinsku zdravstvenu zaštitu koji doprinose razvoju implementacije novih koncepata u zdravstvenom menadžmentu (MH) za i protiv timskog rada u ovim oblastima.

Tema: Uspešan tim se oslanja na dobro komponovane humane resurse. Svaki od članova tima unosi svoje znanje i veštine u proces propisivanja terapije, tako da su odluke o najboljoj terapijskoj opciji, na primer izboru antibiotika i doza, donete na osnovu više dokaza iz medicinske literature nego da ih je doneo samo jedna osoba. Klinički farmakolozi su svakako biti neophodni učesnici u takvim timovima, jer poznaju farmakokinetiku, neželjena dejstva i efikasnost izabranog leka. Za uspešno upravljanje kadrovima u timu koji je u stanju da se nosi sa svim izazovima i preprekama koje nosi multidisciplinarni timski rad, neophodna je odgovarajuća edukacija i profesionalne veštine glavnog menadžera. Primer MDT-a u savremenom terapijskom pristupu je saradnja između bolničke farmakologije i bolničke transfuzije. Timski rad ima svoje prednosti i nedostatke koje dobar vođa može iskoristiti ili prevazići.

Zaključak: Multidisciplinarni zdravstveni timovi često imaju problem kvantifikacije uloženog rada za postizanje zadovoljavajućih terapijskih rezultata. Formiranje multidisciplinarnih timova u zdravstvu je obavezan vid rada u uspešnoj zdravstvenoj ustanovi. Pored kontinuirane medicinske edukacije, poželjno je uvesti edukaciju za rad na svim pozicijama u zdravstvenom timu. Najvažniji cilj MDT-a je dobrobit pacijenta, što zahteva visoke etičke i profesionalne kvalitete osoblja.

Ključne reči: multidisciplinarni timovi, zdravstvo, edukacija, uspešan medicinski tretman, zdravstveni menadžment

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