

# An Overview on Team Work Strategy in Medical Education

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## Abstract

The process of collaborating with a collection of people to achieve a common objective." Despite any personal dispute between individuals, teamwork implies that people will endeavor to collaborate, using their own strengths and delivering constructive criticism." In the medical field, Team work has become a primary focus. A health service that emphasizes effective coordination has been proposed as the method to develop patients care while also minimizing workload problems that contribute to burnout between healthcare personnel. In order to enhance the abilities necessary for efficient cooperation, it is also critical to review what work has previously been done in medicine. Several research has been conducted in sectors where medical practitioners deal with emergency circumstances. The foremost goals of this review is to observe the present state of knowledge on collaborative approach in undergraduate medical educations. In this study, the authors explain, analyses, and evaluate the work that has been done in different domains on team training and the value of team training. The future prospects of this paper involve people becoming more knowledgeable about working as a team as well as the benefits of teamwork in medical education since doctors specialize in a specific area, so the able to operate in a multi-disciplinary team is critical for patients with complex morbidities, healthcare is not only provided by doctors, but also by nurses and other allied health professionals.

**Keywords:** health care, higher education, medical education, team training, team work

## 1. Introduction

Teamwork has become a high significance in the medical industry. The Institute of Medicine's (IOM) study, *Creating a Safer, Healthier Community*, has renewed interest in collaboration by highlighting the large number of avoidable causes of medical errors, many of which are the consequence of dysfunctional or non-existent cooperation. This study claims that collaboration is important for successful patient management because of the rising specialization of roles, the emergence of involvedness and risks associated with treatment choices, and the need to deliver good health care, outcomes, and patient safety. ( A. Olupeliyawa, C. Balasooriya, and C. Hughes 2009). The environment in which healthcare professionals operate is changing, and teams, rather than individuals, are gradually in charge of patient care. Increased specialization and delegation of workers in health services practice and education, and also the expanding breadth of the notion of health and the multidisciplinary work it covers, have all contributed to the growth of team-based treatment. In this perspective, successful cooperation is becoming increasingly widely recognized as a prerequisite for various phases of effective healthcare treatments, ranging from acute healthcare settings to mutual care in principal or enduring precaution settings, Several of the advantages need teamwork's. For example, many of the blunders in healthcare, particularly among trainees, have been the consequence of a lack of Team work ( J. Rai, R. C. Tripathi, and N. Gulati 2020). As a result, good cooperation is an important part of successful health-care practice and should be instilled during basic higher training.

Collaborative learning and inter-professional learning are becoming increasingly popular in this context, while teamwork from other sectors, such as aviation, is being applied to assist healthcare organizations work together more effectively. In dynamic sectors of healthcare, such as emergency medicine, surgery, as well as obstetrics, such

systems have proven beneficial in reducing errors, improving technical performance, and increasing team member satisfaction. Furthermore, a study of Team work training, such as medical team training, suggests that teams training managements as well as accomplishment of perceptive, emotional, procedure, and presentation objectives have relatively favorable associations (L. Riebe, A. Girardi, and C. Whitsed 2016). As a result, team training has been shown to improve teamwork in healthcare and should be included in basic higher training. Participants of healthcare teams, on either hand, they are rarely taught as a group. Even in inter professional learning, several treatment options have committed to improving learners behaviors, information’s, and talents, while only a few effective programs, particularly in post-secondary learning, have examined increases in behavior and clinical outcomes (P. Hall and L. Weaver 2001). As a result, while Team work is becoming a more important aspect of medical education, there are limited opportunities in undergraduate studies for incorporating training session and demonstrating better healthcare results. This study will focus on some of the challenges surrounding the Team work competencies demanded of undergraduate medical students in this environment, with the intention of assisting medical educators in addressing the obstacles in teamwork education and evaluation.

1.1 Healthcare Team Work

Studies have endeavored to define 'group work in healthcare' in the perspective of the aforementioned care teams. A 'crew,' according to organizational literature, is a group of individuals possessing complementary abilities who are dedicated to a single purpose, set of performance targets, and method for that they are all judged responsible. From the preceding discussion, it is clear that groups in healthcare with patient-centered goals meet this description. As previously said, health professionals must constantly work with a team to deliver complete, ongoing, and high-quality healthcare in today's environment. Only in the last century have 'teams' and 'teamwork' in healthcare been recognized as such (D. Kumar V 2019). Teamwork's is defined in healthcare treatments as a chaotic systems in which two or much more healthcare providers with complementary abilities and backgrounds interact to examine, plan, or appraise care coordination while pursuing similar fitness objectives and exerting concentrated physically and psychologically exertion.

Working in a team requires health professionals, the majority of which have diverse career perspectives as well as balancing talents, to organize, interact, and cooperate in direction to execute inter - dependent task as well as actions communally accountable judgements towards a mutual goals of better patients healthcare, as evidenced by such categorizations and the actual practices of healthcare teams. Depending on contexts of the groups to which they belongs, healthcare specialists must be capable to identify as well as undertake independent activities requiring unique skills yet necessitating coordination, as well as tasks requiring interdependency. According to the authors, the term 'surgical crews' was first used in the early 20th century in the United States to designate to a bunch of people formerly known as a 'surgical enterprise.' Following World War II (WWII), the author explains the development of interdisciplinary practice, from the foundation of citizens Healthcare or medical Centers to providing crucial cares to the indigent, to the creation of multi - disciplinary crews in expertise focused regions both in acute (surgery, burns) and chronic subject areas, such as generalist primary healthcare’s.

1.1.1 Categories of Health Care Teams

In the health cares, there are several sorts of teams that are classified as continuous work teams (such as treatment groups, alternative treatment squads, investigation teams, and house care teams), teams that provide tasks for frequent organizations, and teams that conduct functions for individuals (such as hospital quality improvement teams; project team members). All of the teams collaborate for the greater good, and working in a group is significantly superior to working alone since it generates fresh ideas from a variety of perspectives as shown in Figure 1. Health professionals must constantly work with a team to deliver complete, ongoing, and high-quality healthcare in today's environment. Only in the last century have 'teams' and 'teamwork' in healthcare been recognized.

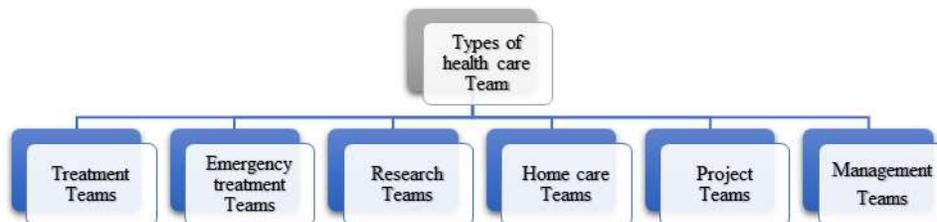


Figure 1. Shows the different types of health care teams

Despite the fact that healthcare professionals are engaged in many types of teams in professional practice, they are most often assigned to work in continuous work units, or work teams. According to the writers, in clinical practice, the phrase "clinical team" is a combination of specialists who are really in charge of providing direct clinical therapy to individual patients in a given setting (P. G. Blasco, M. A. C. d. Benedetto, M. R. Levites, and G. Moreto 2021). Authors go on to argue that in medical practices, the crews has grown from the little, multi professional extended body that should indeed work together for the best possible patient results. As a result, the 'ward team,' which consists of physicians of various levels of skill and other ward personnel, also works as part of a larger team.

Based on the amount of communication among teammates and the level of patient care duties, the authors define team Team work in healthcare as a continuum spanning from multidisciplinary to transdisciplinary. They also define the terms 'multi professional' and 'multi-professionals' as individuals from diverse professions with working together to deliver healthcare to patients; 'multi-professionals' as all these people who are working individually towards a more common goal that can be gained without relying on one's complementary strategies; and 'trans-professionals' as a pixelating of strict standards in the acting skills of certain teamwork's.

## 2. Literature Review

P. A. Takizawa. Proposed that healthcare outcomes and medical mistakes have been found to improve with strong and effective clinical Team work. If educational and clinical tasks are introduced into undergraduate medical education in which students work as a team, they will gain abilities that will prepare them to work in healthcare staff as they proceed through their educations and trainings. Team-based learning (TBL) as well as the Inter professional Longitudinal Clinical Experience at Yale School of Medicine encourages the development of team abilities in the classroom and in clinical settings. Students must work in close proximity in TBL. The COVID-19 epidemic compelled us to convert our in-person events to an online format right away, and subsequently to create clinical and inter professional experiences that followed social distancing principles (P. A. Takizawa, L. Honan, D. Brissette, B. J. Wu, and K. M. Wilkins 2021).

H. Kleppe. states in a competitive market, knowledge is a deciding element for businesses. Demands shift often. If firms can develop knowledge management systems, they may be able to meet these expectations. Teamwork is one of the most critical aspects of this procedure. How can individuals ensure that children and students like working in groups, from instructors to professors in schools and universities? This worldwide research began in Mexico in 2001, and since then, it has attracted a large number of instructors, researchers, as well as professors from other nations. The hypothesis was that there are pre-defined characteristics in teachers' behavior that stem from their country cultures, particularly in the area of Team work (H. Kleppe 1980).

R. H. Johnson suggested in health care, the need of teamwork is emphasized. The causes for medical professionals' apprehension are explained. The necessity of medical students becoming aware of the contribution of other health care professionals, as well as association with them during their education years as well as inclusion into activities when possible, has previously been recommended but mostly ignored. In Team work with the Wellington Medical School of Medicine, a variety of projects for strengthening the education of various professional groups are detailed. Persons learn to work together through association during their training years, which leads to better Team work in health care (R. H. Johnson 1983).

M. R. Moyer. classified the Simulation Model was described by the authors, and it consists of the following key components: Prior preparation in group works of healthcare partners, simulations in workgroups, multidisciplinary teamwork's, team leaders selection, and a Facilitated Group Consultation Methods are all described as an innovative way for motivating teamwork that is now being employed. Multidisciplinary health workers or their leaders use this strategy to organize their solutions to patients health-cares over replicated practices rounds utilizing human patients simulants that resemble genuine patients in the health-care setting in reaction to changes in critical, stress-filled environments (M. R. Moyer and R. D. Brown 2011).

R. Khozhamkul. proposed that Kazakhstan's healthcare reform has laid the groundwork for a change away from a disease-centered strategy to one focused on the individual and prevention. To achieve this goal, Kazakh National Medical Colleges created and implemented a project-based curriculum in General Practitioner (GP) trainings at the internships level. The program's purpose is to teach people how to works and efforts in multidisciplinary squads to promote and conduct research in the field of health. For the training, individuals adopted a project-based education pedagogical approach ( R. Khozhamkul, L. Kosherbaeva, A. Kumar, K. Bayildinova, and S. Sydykova 2019).

H. S. Laird-Fick. Introduced the goal is to educate medical students and nurses how to operate as a Patient-Centered Care (PCC) teams in a hospital ward and to analyze the feasibility, nurses' learnings, as well as clinical conclusions.

Peoples integrated residents' patients on one thirty beds unit with the help of administrative leadership. Peoples already taught inhabitants in an evidence-based, patient-centered style, and now we're teaching five nurse leaders in the same way, who will subsequently train all clinical staff. A national consultant paid us two visits. Nurses and residents participated in specific team-building exercises to improve ward relations. To assess nurses' knowledges and self-efficacy in patient-centered activities, the authors employed a prospective pre-post six-month post design. The major goal was to create a patient-centered environment, which was rated using a post-test alone method. Patients were allocated to our unit or similar units from our emergency departments at arbitrarily (H. S. Laird-Fick 2011).

### 3. Discussion

Increased specialization and division of labors in healthcare professionals education and practice, as well as the widening breadth of the notion of health and the multidisciplinary work it covers, have all contributed to the growth of team-based healthcare. In this context, effective Team work is increasingly regarded as a necessary for many aspects of successful healthcare, from healthcare settings to continuing care in essential or chronically clinical settings. Many of the benefits need Team work. For example, many of the blunders in healthcare, particularly among trainees, have been the consequence of a lack of Team work. As a result, good cooperation is an important part of successful health-care practice and should be instilled during basic higher training.

#### 3.1 Teamwork Training

Teamwork isn't always the result of putting individuals together. Team members require training in order to learn how to operate together and to comprehend each person's professional position and responsibilities. Team trainings may be characterized as a set of tools and techniques which, when combined with required competences and training objectives, comprise an instructional approach. The primary goal of team training is to influence critical team capabilities. Changes in how healthcare personnel are taught to approach cooperation might help to minimize conflict and boost team effectiveness. Interdisciplinary training should begin early in medical school. The medical community has embraced this notion of training in Team work. As per the Accreditation Councils for Graduate Medical Educations, team working is a skills that must be developed and assessed.

In graduate medical schools, confidence and communication talents are listed as one of six core strengths, and residents must demonstrate qualities, "Excellent information's sharing and cooperation with professional partners" are the outcomes. Among the fundamental skills that students must obtain before graduating from medical schools, according to the American Association of Medical Colleges' (AAMC) Medical School Goals Project, is "the ability to successfully interact as well as communicate with clients, patients' family members, coworkers, and those with whom practitioners must share information in carrying out their roles". The Combined Commissions on Accreditation of Healthcare Organizations, the accrediting body for hospitals in the United States, recently suggested team practice as fragment of an inclusive patient's safety and health-care approaches.

There are few guidelines available to aid in the implementation of these principles in hospital environments. In general, cooperation-building initiatives are a fresh notion in medicine, especially for specialists who are typically encouraged to be self-sufficient as well as accountable for their own activities. In order to encourage inter professional training in medicine, further training is required. There must be a desire to collaborate in order to achieve the mutual aim of patient's protection. Whenever a member of the team chooses to work alone, the team's efficacy and accomplishment are threatened. According to a study, individuals make fewer mistakes than crews working collectively in higher-risks and high-intensity job situations. Commercial aircraft, military, firefighting, as well as quick-response police operations are all part of the evidence. Several of these programs rely heavily on simulation as a learning tool. Simulation is the re-creation of a real-life event that has happened or might happen in the future.

One of the most valuable aspects of simulation is that it may be utilized repeatedly to improve an activity, a process, or a dialogue without putting the providers or patients in danger. After a team simulation exercise, debriefing is critical. Debriefing helps the team to understand where mistakes happened and how they may have been avoided, as well as recognize regions of appropriate performance. Simulations without debrief were shown to be ineffective since faults can be continued if members of the team are not conversant that they are creating faults. Commercial airlines is a high-risk sector where errors may cost a lot of money. This industries has been in the vanguard of using cooperative learning to reduce risk. The bulk of air crashes, according to the aviation industry and the National Aeronautics and Space Administration, are triggered by mistakes in verbal interactions, judgements or making decisions, as well as leadership. As a result, training sessions were created to improve communication on the flight deck and prevent mishaps. Crew resource management (CRM) trainings are one of the greatest team training

methodologies to emerge from the aviation industry. This training focuses on Team work and behavioral skills. The value of all teammates is emphasized in CRM.

### *3.2 Teams in Health Care*

In healthcare, working groups, cares delivery crews, and managing crews are all common. Patient populations (e.g., geriatric teams), illness categories (e.g., stroke teams), and care delivery locations (e.g., operating room or critical care unit) may all be classified into care delivery teams. Depending on the sort of care necessary, a broad variety of Team work might take place. When complicated medical conditions necessitate the care of many healthcare experts, higher degrees of teamwork are frequently required. The interdisciplinary teams permits separately profession to offer its unique skills to the care of an individual patient.

In this setting, team members operate in parallel with one another, with little direct communication between specialties save through the lead physician. Team members may come from the same or separate fields. The phrase "interdisciplinary team" relates to a group of people working together closely as well as openly to give a patients the best possible care.. Crisis resource management (CRM) is a subgroup of CRM concepts that is used to high-acuity healthcare circumstances. To be effective, these programs need firms to acknowledge that mistakes will occur and to deal with them in a non-punitive manner, with faults regarded as chances for learning and advancement.

The operating rooms is a higher-risks situation that necessitates tight Team work within all members of the group. The capacity to adapt to variations in the work surroundings, maintaining flexible and exposed communications, as well as anticipate the requirements of each team member are all crucial elements of a dependable team. Staff and trainees from several specialties work in the operating room, making it a diversified setting. Although each of these team members has had extensive training in clinical work tasks, the majority have not received explicit training on how to apply these abilities in a team setting with a high level of task dependency as well as coordination's. The authors developed an operating room simulation-based multidisciplinary team training course that concentrated on interactive qualities allied with extremely productive crews. Dual main hypotheses directed the research: first, that operating theatre members of the team would perceives the replicated circumstances as genuine as well as valuable, or second, that interdisciplinary simulation training would be an effective way of improving Team work and interaction during such an operating room crisis.

The training program included three multidisciplinary operating room teams. Every team completed the training utilizing standardized operative scenarios in digital minimally invasive operating conditions. Following the conclusion of the simulation, each team engaged in a debriefing exercise. Inspection of the recorded performance was a crucial element. The team utilized the films to evaluate and debate specific performances in Team work, communications, as well as situational awareness, guided by the trainer. After the event. Ninety percent's of responders sensed the training models helped those spot problems in the operation room.

Another area that has received consideration is nursing staff Team work. The author explored a number of treatments in a health-care units of a critical hospitals to promote Team work and staff engagement. The treatments included focus groups talks about views of the unit's level of teamwork's, as well as variables that restrict and boost teamwork. The information gathered from the focus groups was collected into a report that was presented at various feedback meetings. The following phase was to have meetings to talk about values, visions, and objectives, followed by a gap analysis to see where they were and where they intended to go. Following that, each member of the squad participated in a team training session. Then, to handle the unique project goals, guiding teams were formed, and suggestions were quickly tested and implemented. The intervention resulted in a decreased patient fall rate, enhanced unit Team work, and lower staff turnover as well as vacancy rates, according to the findings. Patient satisfaction ratings improved to the point of statistical significance, but did not attain it.

### *3.3 Teamwork Training in Medical Education*

In order to find the primary concerns and best practices in healthcare, multidisciplinary education and cooperation are required. Their search turned up two major categories: one dealing with the framework of healthcare professionals education and trainings, and the other with the contents of interdisciplinary education and learnings ( J. Rai, R. C. Tripathi, and N. Gulati 2020). Many others have emphasized, although, that single should initially be confident in one's own profession's ability, and that comprehending contributions to the team effort requires a solid grasp of one's own discipline (M. M. Gupta, S. Jankie, S. S. Pancholi, D. Talukdar, P. K. Sahu, and B. Sa 2020). In the Problem-based learnings (PBL) which is an instance of a collaborative learning technique. In a smaller group environment, PBL allows students to combine concept and clinical components while also demanding knowledge acquisition, and also attitudinal and psychomotor ability (S. Lerner, D. Magrane, and E. Friedman 2009).

PBL is an organized educational activity in which case presentations are frequently used as the training stimulation. As they strive to solve the problem, this strategy teaches students to listen to one another and participate ( J. Rai, R. C. Tripathi, and N. Gulati 2020). Another teaching approach is the service/learner model, which use a clinical environment to encourage students to collaborate successfully in order to solve real-world clinical problems, patient education, or health concerns faced by underserved communities. Both of these strategies focus the team's attention on the patient (S. Shukla, A. Lakhmani, and A. K. Agarwal 2007). Other essential topics discussed in these papers include the necessity to motivate and educate faculty to acquire new team training techniques, as well as the requirement for administrative support from clinical and academic institutions participating in the reforms. TBL (team-based learning) is another widely utilized curricular component. The authors devised a well-defined teaching technique called team learning. A solo instructor may instruct several small teams in the same classroom at the same times using the TBL method. The teacher maintains content control and serves as both a facilitator and a subject matter expert (A. Z. Bhat, V. R. Naidu, and B. Singh 2009). Individuals and group performance may be evaluated using the team learning approach. To master the objectives set to them, students must initial studies individually separate of session.

Medical cooperation is being studied by the Organizations for Healthcare Researches as well as Qualities (AHRQ) and also the Departments of Defense. The two organizations had teamed up to create a innovative resources of training tools to assist medical healthcare staff in improving their Team work skills: Patient Safety and Performance: Teamwork Approaches and Tools Team-steps delivers a configurable, evidence-founded toolbox to develop patients wellbeing safety over increased communications and further collaborative abilities. Assessment, planning, training, as well as implementation, but also reinforcement and sustainability, is all ongoing elements of team-steps programs. Team-steps emphasize four skills: team leadership, situation monitoring, mutual assistance, or communications. Team-steps create an open communication atmosphere where everyone, as well as the patient, feels comfortable talking out, regardless of the circumstance or the procedure's complexities. There are only very few methods for judging whether or not someone is capable of working in a team. For a number of reasons. To begin, it's vital to show that Team work abilities have an impact on clinical performances and, ultimately, clinical outcomes.

#### 4. Conclusion

Communications between various units of doctors, nurses, as well as many of others converts spirited to ensure that perfect and comprehensive knowledge is accessible, correctly communicated, as well as frequently rationalized. This paper proposed the benefits of working in team in health care. Working in a team reduce the workload and generate a better results. Organizational and human aspects psychologists have researched Team work extensively, and as the authors put it, "Better teamwork's the unified integrations of varied information, skills, as well as emotional developments a method to promote patient safety and avoid mistakes," says the study. A well-functioning crews must be capable of completing duties faster and much more safely than a single person or group. On the other side, a dysfunctional team may be aggressive but also counterproductive. The primary purpose of this study is to assess the present state of knowledge on collaborative techniques among undergraduate medical students. The future benefits of this paper include people becoming more knowledgeable about working as a team as well as the advantages of teamwork in medical education because doctors specialize in a specific area, so the capable of operating in a multi-disciplinary team is essential for patients with complex morbidities, as well as healthcare is provided not only by doctors, but also by nursing staff and other allied health professionals.

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