

TIME MANAGEMENT: A REVIEW FOR PHYSICIANS

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This article reviews the basic concepts and techniques of time management as they relate to a medical lifestyle. Essential tools are described to help the physician reassess and sharpen skills for handling intensifying demands and constraints of juggling patient care, research, teaching, and family responsibilities. The historical background and principles of time management for three popular "best selling" techniques are critiqued. In addition, a fourth technique, or model, of time management is introduced for physician use. (*J Natl Med Assoc.* 1996;88:581-587.)

Key words • time management • efficiency • planning
• productivity • goals

Time is our most precious resource. It cannot be bought, saved, or stored. The management of time is therefore essential for a productive and balanced life. Using time management principles helps improve the quality of life for an individual by setting priorities and making choices, thus giving the individual a feeling of control and the ability to achieve reasonable goals.

While the majority of individuals who practice the art of medicine are motivated and effective in their endeavors, most physicians lead stressful lifestyles. In the new health-care environment, physicians are faced with a new set of burdens.¹⁻⁷ As responsibilities expand, physicians must learn to reassess and sharpen skills increasingly required in handling the demands and constraints that impact on their time, practices, and

lifestyle. Physicians must learn to become more efficient and effective. They must learn methods that impart an ability to effectively manage time to balance the needs of a personal and professional life. This article reviews the basic concepts and techniques of time management.

HISTORY

The philosophy of time management dates back to the 6th century AD. Prior to the advent of the clepsydra (water clock) and the sundial, primitive people were thought to have only a primitive cyclic understanding of time, such as seasonal changes, sunrises, and sunsets.^{8,9} Since the advent of Judeo-Christian calendars, human actions have been viewed as events interwoven into an eternal linear time continuum.¹⁰ The first planners of time management were the St Benedictine Monks, in the 6th century AD.¹¹ These monks emphasized and encouraged scheduled activity at all times.¹²

Until the 14th century, early clocks were inaccurate tools of the affluent and were not widely accessible.¹³ With the development of the pendulum by Huygen in 1656 and the second-hand clock 50 years later, more accurate means of determining time became available.⁹ These advances permitted improved coordination for trade in western society and inevitably changed the ways in which business, social, and personal affairs were conducted.¹³

Concepts of time allocation with an emphasis on efficiency and effectiveness resulted from the industrial revolution in the 18th century. The concept of efficiency was first introduced and clearly characterized by Adam Smith, a Scottish economist. In evaluating the manufacturing method of master watchmakers, he determined that by using division of labor, efficiency could be achieved on a grand scale for national economies.¹⁴ Through the coordination of a variety of skilled workers assigned to specific duties in a factory system, workers produced larger quantities of high-

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quality component parts. In an assembly-line fashion, these parts could be assembled into multicomponent products. Eli Whitney expanded this concept and introduced mass production.¹⁵ By using workers to assemble interchangeable parts for muskets, production was increased. These advances in organizing human effort established the basic principles of time management.

Benjamin Franklin is considered the father of modern time management and linked the importance of success to proper usage of personal time. He advanced the notion that success in any endeavor was linked with a principled lifestyle. In seeking to help future generations become successful, he outlined 13 virtues or goals.¹⁶ Franklin linked goals to a reassessment method in which errant personal behavior was realigned with outlined personal goals. The idea of managing personal time as a successful way of accomplishing important challenges in life introduced the concept of effective use of time.

In the 19th century, Frederick Taylor pioneered scientific studies to enhance industrial worker performance. He used a stopwatch to statistically analyze specialized factory labor at the level of each individual task per laborer. His goal was to create a surplus of profits to be shared by workers as an incentive plan for producing worker-manager harmony.¹⁷ To do this, each step of production would be controlled to make workers more efficient. Thus, Taylor pioneered in an era in which industrial output and worker performance were studied scientifically.

By the mid-20th century, attention had shifted toward the organizational skills of the manager.¹⁸ With the introduction of Hawthorne's theory on worker motivation, great emphasis was placed on organizing and prioritizing skills.¹⁷ In 1958, James McKay published the first book on time management.¹⁹ Since then, three generations of time management techniques have evolved.²⁰ It is now recognized that time management techniques have become an essential tool for service-oriented industries.^{21,22}

THE PRINCIPLES OF TIME MANAGEMENT

Current models of time management focus on the achievement of a balance in personal and professional commitments. With the busy life of a physician, time management techniques help establish the priorities of both professional and personal responsibilities, thus leading to a more productive and better balanced life style. Several popular techniques for time management will be described, but first basic concepts found in all of the models will be identified.

The essence of time management revolves around two principles, Pareto's Principle and Parkinson's Law. Pareto's Principle states that 80% of effective results, or rewards, are derived from about 20% of all energy—the 80/20 rule.^{23,24} While originally described for economic endeavors, the application of this principle in time management helps one to appreciate that we achieve the major portion of our goals with a minor portion of our energy. Parkinson's Law states that there is a human tendency to spend effort and time on more insignificant tasks that are perceived as important rather than those of true importance.²⁵ In being able to identify what is truly important, one can gain momentum toward achieving true desired goals.²⁶

The recurring themes in time management are advanced planning, setting goals, establishing priorities, delegating responsibilities, and minimizing procrastination and interruptions. Advanced planning requires that specific goals be set and that some order of priority for their accomplishment be established. Once the specific goals are identified, it is important to prioritize the tasks that are more important to achieve the goals. For example, a list of tasks can be grouped by an ABC method of importance, where A signifies activities of highest importance, B's are activities that are important, and C's are optional tasks.²⁴ Delegating assigns responsibility and authority to another person with the sole purpose of creating an extension of oneself to increase time spent on more meaningful issues.

The major obstacles that keep most people from achieving well-established goals are interruptions and procrastination. One can never eliminate these two great "time wasters." However, there are techniques to minimize these obstacles. For example, the most frequent form of interruptions are unplanned interactions with others, which have been estimated to waste up to 60% of an executive's effective use of time. Better planning can result in minimizing these interruptions.

THE ABC TECHNIQUE

The most often cited and fundamental approach to formulating a way of managing one's time is a "priority system" first described by Alan Lakein. In the ABC technique, each individual consciously learns how to get control of one's time—and life—by focusing on what is considered truly important. By focusing on judging one's own priorities, or making an educated guess, a person makes a list of goals and writes down those that are deemed worthy of being accomplished. In formulating a list of goals, or priorities, goals are grouped together under an assigned letter (ie, category)

such as A, B, or C. All "A" grouped tasks or goals reflect activities of high importance (must be undertaken and completed soon), "B" grouped tasks signify activities deemed less important (but need to be accomplished at some point in the future), and "C" grouped tasks are activities of low or no importance. In using this method, by identifying and assigning value to one's activities, each person actively plans desirable short, intermediate, and long-term goals.

According to the principles of this technique, each goal or task is listed as a relative priority for the time manager. Moreover, under the defined category of tasks, one can further break down tasks into items of relative importance by numerically prioritizing them. For example, an A-1 task is the first important goal to be undertaken in a given day and has more priority for completion than a task labeled A-2, A-3, or B-1. Simply, the ABC method is a shorthand method of reminding oneself of what one's assigned priorities are in a given day, week, or month, and a record of what is being accomplished. The technique is simple and good for beginners. Many modern-day electronic organizers use this technique under the functional heading "TO DO" along with calendar, expense, and other various functions. The use of a tedious list is a drawback, but may prove to be a worthwhile endeavor for many new to the practice of time management. In listing priorities, one confronts important activities routinely and begins a process of conditioning him- or herself to assess wise use of time.

TIME MANAGEMENT MATRIX TECHNIQUE

The Time Management Matrix Technique (TMMT) was constructed by Steve Covey to focus on the control of personal actions rather than purely scheduling time.²⁷ The technique places all time-consuming actions into one of four theoretical quadrants of activity, which enable a person to characterize an action as being important or urgent relative to the desired goal. The four quadrants are:

- I—important and urgent,
- II—important and not urgent,
- III—not important and urgent, and
- IV—not important and not urgent.

Within quadrant I are activities of crisis, pressing problems, deadlines, and emergencies. These activities create stress and consume a great deal of energy, and thus are viewed as time wasters. While physicians are trained to deal with these activities, their management method frequently spills over into other areas of their life. Covey emphasizes that it is always better to try to

achieve activities in quadrant II. Quadrant II activities focus on planning, prevention, creativity, building relationships, and maintaining increased productivity. Quadrant III activities are characterized by interruptions, involvement with popular interests, and mandatory meetings with nonproductive results. Quadrant IV entails activities that are considered frivolous and non-helpful toward achieving goals.

The matrix of quadrants provides a means of identifying different types of activities and how the effectiveness of these activities are toward achieving one's goals. This model seeks to minimize activity that continuously requires maximal expenditure of effort and time on nongoal-achieving tasks. For example, important and urgent events in life can be identified and separated from one another. Urgent events are usually priorities imposed on us, but may not be an important priority relative toward achieving our goals. Many competent people spend 90% of their time on tasks they consider important and urgent—quadrant I—and 10% is spent recuperating in nonimportant and either urgent or nonurgent activities, respectively, quadrants III and IV.²⁷

By leading a life "planless," encounters of continual crisis management and a lifestyle consumed by an inability to prepare for future important tasks may develop. Eventually, these quadrant I activities result in stress and burnout. In quadrant III, focused on only urgent and nonimportant affairs, short-term gains may be reached, but at the expense of feeling victimized by often misidentifying urgent tasks as important and realizing achievable goals are no closer. These results end with temporary gain and with no long-term plans. Quadrant IV activities accrue results that are worthless and a waste of time. These people lead stressful lifestyles consumed by activities of the moment and find that they have great difficulty in accomplishing their personal goals.

Therefore, the Covey technique of time management helps to channel efforts into quadrant II, which is the working ideal, where activities are of importance, but not urgent. The aim is to spend more energy in planning anticipatory types of activity and emphasize ways of thinking about extracting irresponsible use of time from nonimportant activities. By planning and controlling events, unimportant time-consuming tasks are eliminated and time for new opportunities is created. Activities in quadrant II provide balance and focus toward important goals.

The time matrix centers on achieving results with three basic skills. The first skill, proactivity, is a mind-

Monday 4/14	
6:00am	Rounds
7:00	Breakfast
7:30	Office Hours
11:00	Reading Articles
12:00pm	Lunch
12:30-2:00	Dept. Meeting
2:00-4:00	Office Hours
5:00-6:00	Rounds
6:00-7:00	Administrative Duties
7:00-8:00	Home and Dinner
8:00-10:00	Personal Activities
10:00-11:00	Paying Bills
11:00-5:00am	Sleep
5:00-6:00am	Prepare for Work

Figure 1. An hourly time log is kept for a typical week. All activities including sleep and other nonwork-related activities are recorded for each day. This can be done by taking several breaks in the day, reflecting back on the activities performed during the previous hours. Thus, activities for 168 consecutive hours are recorded.

set to gain control over ineffective lifestyle situations. Once recognized, the ability to initiate desirable change is acquired. The second skill is learning to have a clear vision of end results. By learning to visualize, a person directs oneself in accomplishing the right goals and momentum is gained in accomplishing important matters. The third skill is classical prioritizing. The ability to prioritize important responsibilities, challenges, and the demands of life through foresight leads one toward gaining more control over outcomes that are manageable. These three skills allow a person to identify the theoretical quadrants by which he or she is operating in life and adjust those activities that result in a nonproductive lifestyle into activities that help achieve one's goals.

The advantages of this technique revolve around its easy conceptualization, the matrix flexibility in application, and the focus on actions in achieving goals. By clearly viewing all activities as existing in one of four quadrants, one can assess intuitively how time is being expended relative to its importance or urgency in accomplishing events of priority. Rather than listing items to be achieved, as done in other models, this tech-

nique relies on the ability of users to condition their actions toward accomplishing goals by making a mental note as to which quadrant the activity belongs, with quadrant II being the ideal. The major disadvantage of this model is that it is difficult for beginners to use.

NATURAL LAWS TECHNIQUE

This model of time management is based on Benjamin Franklin's principles, introduced by the group Franklin Quest.²⁸ The technique asserts that maximal productivity can be reached by using time records to help evaluate and plan life. Once goals are identified, long-term plans, intermediate plans, and daily tasks are developed to help attain and reassure desired future results. This planning system uses quiet time to plan and develop tasks. Familiar external and internal factors that limit the supply of time—time robbers—are acknowledged. The model encourages the use of a daily planner system to record, reassess, and reaffirm one's goals.

The model asserts that to make a change in life, the use of a reality model is required. There are five parts to the reality model:

- identify behavior patterns,
- identify beliefs that drive those behaviors,
- predict future behavior without change,
- identify alternative beliefs, and
- predict future events based on new beliefs.²⁸

These steps are based on an approach of adopting behavior that gives realistic and appropriate results. Therefore, the natural laws model promotes the idea that a person's values should be in line with goals and recognizes that the scheduling of and prioritization of daily tasks are instrumental in reaching both long-term and short-term goals.

The advantage to this popular system is that it has been shown to help people achieve goals by using basic concepts of time management. There is also the support of a large organization to help individuals develop and maintain their time management skills. However, the disadvantages are that the system requires the continuous use of a daily planner that requires a constant effort to keep track of tasks. One must carry the planner and use it throughout the day. There also appears to be an excessive amount of scheduling required for the system, which is not always possible for physicians.

TIME MANAGEMENT MODEL

The authors have developed a simplified time management model that can be used with minimal effort and investment. The model incorporates the basic prin-

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Activities: & Time							
TimeSpent: Medicine Education Idle/Wasted Family							

Figure 2. By listing the activities of each day, it can be determined how much time is being spent on the activities of any given day. A week-long list is made to determine which activities are being performed on a given day. Once this assessment is made, one can begin to initiate adjustments in the amount of time spent on activities during the week according to personal goals.

ciples of time management in a flexible way to help physicians achieve desired goals and lead a more balanced life, and in doing so hopefully improve their quality of life.

This time management protocol has three parts. The first part requires a modest investment of time for 1 week. An analysis of how one's time currently is being spent is necessary. To do this, an hourly time log for a typical week should be kept; index cards may be used for record keeping (Figure 1). During several breaks each day, few minutes are taken to record how the previous hours were spent. All hourly activities including sleep and nonwork-related activities should be recorded. By doing this, all activities for each day are recorded. How all 168 hours in an average week were spent should be recorded. At the end of 1 week, an analysis of the daily time log is undertaken and an assessment of how the hours are spent is made (Figure 2). Once analyzed, changes then can be initiated to increase the effective use of one's time.

Following the analysis of the time log, one should set personal goals. One way to do this is to write down six broad categories of interest and necessity (Figure 3). The categories might be family, personal relationships, work, physical exercise, hobbies, etc. Work consumes so many hours for most physicians that work can be divided into subcategories such as clinical care, administrative work, teaching responsibilities, writing, research commitments, etc. The purpose for establishing goals in six broad areas is to make oneself aware of

Wednesday 4/16
1. Personal Relationship: dinner with significant other phone call during work day
2. Work/Administrative: dictations phone calls
3. Work/Clinical: office hours rounds
4. Work/Teaching: review lecture notes for student/conf.
5. Hobby: play piano
6. Physical Exercise: workout 30 minutes/use stairs at work

Figure 3. To identify personal goals, six broad categories of need and interest are written down on a 3×5 index card or in a personal planner. At the beginning or end of each day, 10 minutes are taken to write down the activity needed to achieve a reasonable goal under each category. The goals should be automatically prioritized. As the day progresses and as goals are achieved, those completed are checked off. In doing so, goals that are (or are not) achieved will be identified.

the needs, wants, and desires of life to create a plan to accomplish them.

Once personal goals have been identified, a period of time must be taken to organize the day around the personal goals. It has been suggested that 10% of an individual's time should be spent in planning; however, this is impractical for many physicians. Ten minutes at the start or end of the day will suffice for planning. During the 10 minutes, the six categories of interest and necessity are written on an index card or in a daily planner. Under each category, a reasonable goal that is to be achieved in that day is written down (Figure 2). The list also can be prioritized. As the day progresses, the goals that are achieved are checked off.

The time management model outlined does not advocate the budgeting of every minute of the day. How an individual achieves his or her preplanned daily goals is left up to that individual. However, by identifying broad personal categories of interest and necessity and taking a small amount of time to preplan the daily goals, one can achieve more of what one wants in life. One will begin to find strategies to achieve goals and eliminate time-wasting activities. The program helps an individual focus on daily achievements, instead of omissions, and helps one take control of his or her life by making choices.

CONCLUSION

Ideally, the physician is guided by a set of strong principles that are centered in skill, science, and genuine humanitarian efforts. A physician is required to have determination, courage, curiosity, imagination, and the collaborative spirit to meet the needs of fellow human beings and meet the challenge of advancing the cause of modern medicine. However, the physician cannot always measure up to these ideals and leads a stressful lifestyle. The challenge to live up to the ideal can be overwhelming and exhausting, leading a physician into a dangerous self-defeating cycle. In this situation, the opportunity to identify what is truly important in life is lost and may impair the chance of gaining perspective along with the ability to nurture creativity. The commitment to the Hippocratic ideal requires dedication and sacrifice; therefore, physicians must creatively plan ahead and manage their time properly to live a more balanced life. We all have witnessed the sacrifice of important personal commitments for overemphasis and involvement with nonvital professional tasks. Western culture is fraught with such historical tendencies to equate excess hard work with competency, and many physicians may be found guilty of this association. The

leading cause of lowered productivity among professionals is an unbalanced lifestyle.²⁹

The use of time management techniques can help create a better balanced lifestyle for physicians, determined on an individual basis. If physicians lead a more balanced, well-planned life, despite their limited amounts of time, they can give better quality care to their patients and experience fulfillment in other areas of their lives. Time is our greatest asset and must be used wisely as it cannot be bought, stopped, or saved. Use it wisely.

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Coming this fall . . .

Effects of Incarceration on HIV-Infected Individuals

Moya M. Griffin, John G. Ryan, DrPH, Victoria S. Briscoe, MM, and Kathleen M. Shadle, MD

Human immunodeficiency virus (HIV) infection is a critical problem among the incarcerated population, with rates as high as 17% being reported for prison systems in New York. A review of 800 charts was initiated. Baseline, 2 to 5 months, and 6 to 12 months CD4 cell counts were obtained. Mean cell counts were calculated, and paired t-tests were used to identify differences. Results indicated that incarceration causes a more rapid decrease in CD4 cells compared with an outpatient population, when not on antiviral therapy, causing clinical significance on the normal course of HIV disease.

Race and Hospital Discharge Against Medical Advice

Ernest Moy, MD, MPH, and Barbara A. Bartman, MD, MPH

This study examines the relationship between patients' race and discharges against medical advice from hospitals. Data from the 1990 National Hospital Discharge Survey were analyzed. Results showed that African-American patients were 1.78 times more likely than white patients to be discharged against medical advice. The authors conclude that further research is needed on why African Americans are more likely to be discharged against medical advice and any inequities resolved to optimize the delivery of inpatient services.

Chronic Respiratory Illness as a Predictor of Survival in Idiopathic Dilated Cardiomyopathy: The Washington, DC, Dilated Cardiomyopathy Study

Stephen A. Martin, Jr, MPH, Steven S. Coughlin, PhD, Catherine Metayer, MD, Antonio A. Rene, PhD, MPH, and Isaac W. Hammond, MD, PhD

This study explores the prognostic importance of chronic respiratory disease in idiopathic dilated cardiomyopathy. A history of bronchial asthma, emphysema and chronic bronchitis, and respiratory medication use were examined as possible predictors of survival in idiopathic dilated cardiomyopathy using data from a population-based study in Washington, DC. Survival rates of idiopathic dilated cardiomyopathy patients were similar. The authors conclude that the results do not suggest that a history of chronic respiratory illness is an independent predictor of survival in idiopathic dilated cardiomyopathy.