



# Enhanced Recovery After Surgery Protocols and Effective Time Management in Nurses

## Cerrahi Sonrası Hızlandırılmış İyileşme Protokolleri ve Hemşirelerde Etkin Zaman Yönetimi

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### ABSTRACT

Time management means that using the time at an optimal level with minimal effort. Time management plays an important role in ensuring the functioning of the active organization, which makes the time management important especially in the areas that provide healthcare services. Nowadays, ERAS (Enhanced Recovery After Surgery) protocols, are consists of evidence-based findings and require multidisciplinary work, which have emerged with the development of surgical and anesthesia techniques. Nurses play a vital role in both health care services as well as ERAS protocols due to the structure of ERAS protocols, it is thought that nurses will use time effectively.

The relationship between nursing and time management was emphasized primarily within the scope of the study. In this direction, the time management process to be followed has been put forward. Finally, the effects of ERAS protocols on time management were stated. So the main purpose of this review is to highlight the effects of ERAS protocols on nurses time-effective procedure.

**Keywords:** ERAS, time management, nursing

### öz

Zaman yönetimi, zamanı en az çabayla optimal düzeyde kullanabilmek anlamı taşımaktadır. Zaman yönetimi özellikle etkin örgüt işleyişini sağlanmasında önemli rol oynamaktadır, bu da özellikle sağlık hizmeti veren alanlarda zaman yönetimini önemli hale getirmektedir. Günümüzde cerrahi ve anestezi tekniklerinin gelişmesi ile kanıta dayalı bulgulardan oluşan ve multidisipliner çalışma gerektiren ERAS (Enhanced Recovery After Surgery-Cerrahi Sonrası Hızlandırılmış İyileşme) protokolleri ortaya çıkmıştır. Hemşireler hem sağlık hizmetlerinde hem de ERAS protokollerinde anahtar rol oynamaktadır. ERAS protokollerinin yapısı gereği hemşirelerin zamanı etkin kullanmasını sağlayacağı düşünülmektedir.

Çalışma kapsamında öncelikle hemşirelik ve zaman yönetimi arasındaki ilişki vurgulanmıştır. Bu doğrultuda izlenmesi gereken zaman yönetimi süreci ortaya konulmuştur. Son olarak da ERAS protokollerinin zaman yönetimi üzerinde ne gibi etkileri olduğu belirtilmiştir. Bu derlemenin amacı ise, ERAS protokollerinin hemşirelerin zamanı etkin kullanması üzerine olan etkisine ışık tutmaktır.

**Anahtar kelimeler:** ERAS, zaman yönetimi, hemşirelik

Received/Geliş: 11.02.2019  
Accepted/Kabul: 25.01.2021  
Published Online: 15.04.2022

Cite as: Yılmaz K, Ganiyusufoğlu A. Enhanced recovery after surgery protocols and effective time management in nurses. Jaren. 2021;7(1):49-54.

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## INTRODUCTION

Time is a universal concept that repeatedly emphasized the significance of different aspect throughout the historical process. Although time is known and a stubborn fact, it is difficult to express a certain pattern, so there have been many different definitions of time. Time is just an asset that we can't afford to save, borrow, and buy with money and similar tools <sup>(1)</sup>. For each work performed, more or less time is required and there is no substitute for the time being used. Due to this feature, time can be expressed as the most expensive asset in the universe. Therefore, the management of this unique existence has become a necessity especially in today's world <sup>(2,3)</sup>.

The concept of time is also very important for nurses who have to do quantitative and qualified work in a short time. Nurses may not be able to predict how they can organize their time or where they can begin in an intensive work pace. However, the concept of time should be included in the nursing functions with every aspect. Nowadays it is very important to learn how to use time effectively and efficiently <sup>(4)</sup>.

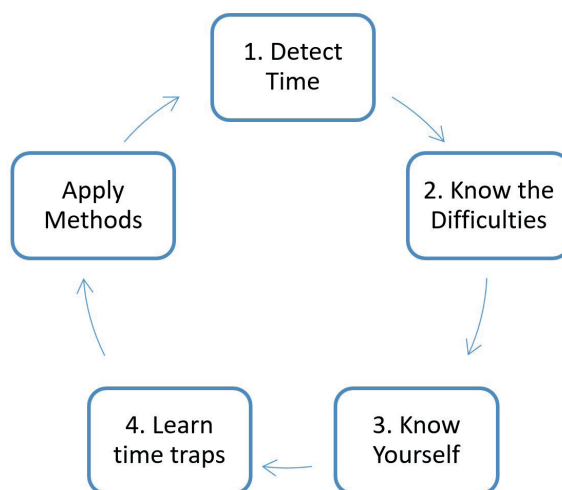
ERAS protocols enable nurses to manage their time effectively; it will primarily lead to effective and efficient work. It will also increase their professional happiness and motivation. These results will increase the quality of service provided to individuals and accelerate the healing process of patients.

### 1. Nursing and Time Management

Time management regulates how to do what needs to be done in the shortest time and with minimal effort. Time management directly affects the attitudes and behaviors of both managers and employees within the organization. The time should be well managed for an efficient and productive organization <sup>(1)</sup>.

Effective use of time is considered as a tool that helps the individual to program his/her personal and professional life. It is a method of balancing life in a way that is beyond the control of what is happening in the environment and business life as well as working life. Successful time management has nothing to do with more work, assess every day until the last minute, and be tired, exhausted at night. Successful time management is not to do things fast, but to make the right work with the right timing in the right time <sup>(5)</sup>.

Time management is a process. In this context, the time management process is; detection of time, being aware of the difficulties to be faced, self-knowledge, knowledge of time traps and applying methods can be expressed in five stages <sup>(6)</sup>.



Graphic 1. Time Management Process <sup>(6)</sup>

In addition, a number of obstacles may arise against an effective time management. These barriers can be listed as planlessness, failure to set priorities, delayed, hasty, workaholic, routine and unnecessary works, indecisiveness, problem of devolution and messy working environment <sup>(7)</sup>.

The right and effective management of the time becomes far more important, especially since it directly carries out activities related to human health in hospitals, polyclinics and similar places <sup>(1)</sup>. Since nurse is a health professional who gives direct care to the individual in every step of health care services, therefore the time management in nursing profession has been an important concept <sup>(8)</sup>. Good management of time is of great importance in order to provide effective and quality nursing services in improving the effectiveness and efficiency of health institutions <sup>(9,10)</sup>. However, nurses are experiencing a number of challenges while trying to perform an effective time management. Especially; lack of physical working conditions, unprogrammed seizure order, corruption in the management level and uncertainty in role description may prevent nurses from using their time efficiently <sup>(11)</sup>.

The main processes of time management in order to eliminate the problems experienced by the nurses;

analysis of time use, determination of time problems, self-definition of nurses, determination of goals and priorities in this direction; preparation of daily plans and programs, addition of program objectives to implementation plans and development of time management techniques can be realized <sup>(12,13)</sup>.

In the literature, many time management studies were conducted for nurses. In this context, Bahçecik et al. (2004) reported that nurses have better time management, better planned visits and social activities, better manage their meetings and work more regularly. In a study on the nurses by Sayan (2005), argued that most of the nurses started their work and gave great importance to the transfer of authority <sup>(10,14)</sup>.

In Sari's (2018) study "Determination of opinions and practices related to time management of manager nurses" asked questions about time management in nurses working at Dokuz Eylul University for at least 10 years. As a result of the study, it was concluded that the administrator nurses could not manage their time well. Intensive Care Nursing And Time Management <sup>(15)</sup>.

In Mirzaei et al. (2012) study "Nursing students' time management, reducing stress and gaining satisfaction: a grounded theory study" investigates how Iranian nursing students manage their time according to the circumstances and obstacles of their academic field. It was found that students allotted most of their time to academic tasks in an attempt to overcome their stress. The findings of this study indicate the need for these students to have time for the extra-curricular activities and responsibilities that are appropriate to their age <sup>(16)</sup>.

In Bowers et al. (2008) reported that time was an extremely salient work condition for the nurses

interviewed. Under conditions of too little time and many interruptions, nurses compensated by developing strategies to keep up or catch up. These strategies included minimizing the time spent doing required tasks, creating new time and redefining work responsibilities <sup>(17)</sup>.

Finally, in the study named "Intensive care nursing and time management" conducted by Özcanlı and İlgün (2018), it was concluded that the time which cannot be managed effectively and efficiently in the intensive care units may cause negativity in the patient's healing process <sup>(18)</sup>.

Studies show that nurses experience some deficiencies in the effective use of time. This situation affects not only the nurse's working conditions but also the healing process of the patient. The application of ERAS (Enhanced Recovery After Surgery) protocols, which are recently based on evidence-based applications, in nursing field is thought to help nurses to manage time effectively.

#### ERAS Protocols and Effective Time Management in Nurses

Developments in the areas related to anesthesia and surgery and the increase in the studies have revealed a different approach instead of the traditional approach to patients. This multidisciplinary approach, consisting of evidence-based findings and requiring multidisciplinary work, is called ERAS (Enhanced Recovery After Surgery) <sup>(19,21)</sup>. The aim of ERAS protocols is to provide reduce mortality and morbidity, hospital stay, surgical stress response, postoperative pain and complications, effective cost and early discharge <sup>(22,23)</sup>. The results of recent studies on ERAS protocols have shown that the targeted objectives have been achieved <sup>(24,27)</sup>. ERAS protocols consist of 25 components and include the perioperative period <sup>(28)</sup>:

Preoperative	Intraoperative	Postoperative
- Patient Education and Counseling	-Anesthesia Protocol	- Nazogastric Probe
- The Prehabilitation	-Epidural Analgesia	- Urine Catheter
- Mechanical Bowel -Preparation	-Incision Selection	- Blood Sugar Management
- Starvation	-Prevention of Hypothermia	- Stimulation of Intestinal - Motility
- Nutrition Assessment / Nutritional Support	-Multimodal Approach to Nausea and Vomiting	-Multimodal Analgesia
- Preoperative Optimization	-Liquid Management	- Nutrition
- Premedication	-Drains	- Early Mobilization
- Thromboprophylaxis		- Discharge
- Antimicrobial Prophylaxis		- Monitoring of Results
- Preparation of the Surgical Site		

In the ERAS protocols, patients encounter the health professional from different standpoint from the outpatient clinic to discharge and then follow-up. This team includes Surgeon, Anesthesiologist, Nurse, physiotherapist and dietitian's [29,30]. Among them nurses play the most key role in preoperative patient training, application of starvation protocol, mechanical bowel preparation, antibiotic and thromboembolism prophylaxis, prevention of hypothermia in the intraoperative period, effective analgesia in the postoperative period, early mobilization, prevention of nausea and vomiting, ileus prophylaxis, and last but not the least discharge and monitoring of results <sup>(30-33)</sup>.

Although ERAS protocols require multidisciplinary teamwork, the task of each healthcare professional is clearly defined and planned. This planning in the perioperative period is important in terms of time management. When working with ERAS protocols, planning is clearly defined with whom, when and how. The work to be done is determined as preoperative, intraoperative and postoperative period and is shared about who will do it. In this way, every work can be performed in a certain order within the desired time. In addition, determining the priorities and making a priority list in this framework will also provide significant advantages in terms of effective use of time <sup>(34,36)</sup>. In addition, instead of performing high-level works, it is an important indicator that it is not a proper time management to take more time to work with less importance, to postpone the work or to make a hurry by leaving the work to the last minute. However, ERAS protocols can ensure effective time management by eliminating postponement and hastiness as they require correct implementation at the right time <sup>(34,36)</sup>. As ERAS uses evidence-based applications instead of traditional methods in the protocols, it decreases the mortality and morbidity and decreases the workload and decreases the workload <sup>(22,23)</sup>. For example, ERAS protocols do not recommend unnecessary antibiotic prophylaxis, bowel preparation and provide effective analgesia, to provide effective time management.

One of the most important studies on the workload of the ERAS protocols was performed by Hübner et al. Since 2011, more than 1,500 patients have been using the protocols in the hospital. *Projet de Recherche's Nursing (PRN)* has been used to evaluate the effect of nurses on the workload. The result of the

study showed that as the compliance of nurses with ERAS protocols increased, the workload decreased <sup>(32)</sup>. As the level of knowledge about ERAS protocols is increased in Turkey, it is thought that as the practices become widespread and adaptation increases, the workload of the nurse will decrease and the time will be used more effectively.

## CONCLUSION

There have been recent developments in the implementation of ERAS protocols in Turkey. In 2016, two training and research hospitals from Turkey participated in the ERAS Implementation Program which organized by ERAS Society and the first step was taken to establish ERAS center of excellence in Ankara. In 2018, they organized their first congress and implemented a mobile application which was explained by the related experts <sup>(28,37)</sup>. In addition, the number of studies on ERAS is increasing day by day <sup>(27,38,39)</sup>. In contrast to these developments and evidence-based applications, factors that prevent the routine application of ERAS protocols in the clinic are as follows;

- The number of nurses working in the services is low and therefore the workload of the nurse is high due to the high number of patients per nurse,
- The bias of ERAS protocols will increase the workload,
- The need to learn protocols

ERAS protocols are evidence-based applications and evidence is increasing that patients achieve early recovery and achieve targeted goals <sup>(27,38,39)</sup>. When the ERAS protocols are adapted, it is shown that the nurse reduces the workload and suggests that it provides effective time management for the application.

The nurse who implements ERAS protocols provides patient care with evidence-based practices, and also achieves advantages such as planning her own career by managing time better, following the literature and providing intellectual development, taking time out of their own. In this context, it is considered that the implementation of ERAS protocols, informing other health professionals and nurses about ERAS protocols and following the literature will be important in terms of providing effective time management of nurses.

### Author contribution

Study conception and design: KY and AG ; data collection: KY and AG ; analysis and interpretation of results: KY and AG ; draft manuscript preparation KY and AG All authors reviewed the results and approved the final version of the manuscript.

### Funding

The authors declare that the study received no funding.

### Conflict of interest

The authors declare that there is no conflict of interest.

### Yazar katkısı

Araştırma fikri ve tasarımı: KY ve AG ; veri toplama: KY ve AG ; sonuçların analizi ve yorumlanması: KY ve AG ; araştırma metnini hazırlama: KY ve AG . Tüm yazarlar araştırma sonuçlarını gözden geçirdi ve araştırmanın son halini onayladı.

### Finansal destek

Yazarlar araştırma için finansal bir destek almadıklarını beyan etmiştir.

### Çıkar çatışması

Yazarlar herhangi bir çıkar çatışması olmadığını beyan etmiştir.

## REFERENCES

1. Çelik A, Şimşek MŞ, Soysal A. Zaman yönetimi: Yönetimsel zamanda etkinlik. Konya: Eğitim Bookstore Publishing. 2016.
2. Eren E. Yönetim ve organizasyon. İstanbul: Beta Publishing. 1993.
3. Drucker PF. Etkin yöneticilik. (Translate: Özden A, Tunalı N). İstanbul: Eti Publishing. 1994.
4. Kuşçu Karatepe H, Atik D. (2015). Hemşirelikte zaman yönetimi neden önemlidir. Sağlık ve Toplum 25(2), 30-33.
5. Arslantürk Y. Hemşirelerin genetik danışmanlık rollerine ilişkin farkındalık ve yetkinliklerinin belirlenmesi. Yıldırım Beyazıt University Institute of Health Sciences Nursing Department. Ankara: Master Thesis. 2015.
6. Kırır S. Yönetimsel anlamda zamanın etkin kullanımı ve bir araştırma. Ankara: Gazi Publishing. 2007.
7. Bayramlı Ü. Zaman yönetimi. Ankara: Seçkin Publishing. 2017.
8. Silahtaroglu, F. Akademisyenlerde zaman yönetimi. Gaziosmanpaşa University Institute of Social Sciences, Tokat: Master Thesis. 2004.
9. Ançel G. Hemşirelerde zamanı verimli kullanma. Hacettepe University Institute of Health Sciences Nursing Department, Ankara: Doctorate Thesis. 1996.
10. Sayan I. Yönetici hemşirelerde zaman yönetimi. Marmara University Institute of Health Sciences. İstanbul: Master Thesis. 2005.
11. Karakuş H. Hemşirelerin iş tatmin düzeyleri: Sivas ili örneği. Dicle University Social Sciences Institute Journal. 2011; 6: 46-57.
12. Karaoğlu AD. Üst düzey yöneticilerin zaman yönetimi. Balıkesir University Institute of Natural and Applied Sciences. Balıkesir: Master Thesis. 2006.
13. Akatay A, Yelkikalan N. Zaman yönetimi ve yönetsel zamanın etkin kullanılması. Journal of Administration Sciences 2008; 6(1): 15-24.
14. Bahçecik N, Öztürk H, Şerbetçi G. Yönetici hemşireler için zaman yönetimi ölçeği ve zaman yönetimini etkileyen faktörler. Journal of Management 2004; 49: 67-78.
15. Sarı BA. Yönetici hemşirelerin zaman yönetimine ilişkin görüş ve uygulamalarının belirlenmesi. Celal Bayar University Institute of Social Sciences. Manisa: Master Thesis. 2018.
16. Mirzaei T, Oskouie F, Rafii F. Nursing students' time management, reducing stress and gaining satisfaction: a grounded theory study. Nursing & Health Sciences 2012; 14(1): 46-51. [Crossref]
17. Bowers, B. J., Luring, C., Jacobson, N. (2001). How nurses manage time and work in long-term care. Journal of Advanced Nursing 33(4), 484-91. [Crossref]
18. Özcanlı D, İlgün S. Yoğun Bakım Hemşireliği ve Zaman Yönetimi. Yoğun Bakım Hemşireliği Dergisi 2008; 12(1-2): 23-25.
19. Kehlet H, Dahl JB. Anaesthesia, surgery and challenges in postoperative recovery. 2003; 362: 1921-28. [Crossref]
20. Gündoğdu H. Cerrahi sonrası iyileşmenin hızlandırılması. Turkish Journal of Surgery 2017; 23(1): 35-40.
21. Ünlü H. Hızlı iyileşme protokolü ile total kalça veya diz artroplastisi yapılan yaşlı hastalarda hemşirelik bakımı. Türkiye Klinikleri J Surg Nurs-Special Topics 2017; 3(2): 143-149.
22. Hübner M, Addor V, Sliker J, Griesser AC, Lécureux E, Blanc C, Demartines N. The impact of an enhanced recovery pathway on nursing workload: A retrospective cohort study. Int J Surg 2015; 24: 45-50. [Crossref]
23. Feldheiser A, Aziz O, Baldini G, Cox BPBW, Fearon KCH, Feldman LS, Gan TJ, Kennedy RH, Ljungqvist O, Lobo DN, Miller T, Radtke FF, Ruiz Garces T, Schrick T, Scott MJ, Thacker JK, Ytrebø LM, Carli M. Enhanced recovery after surgery (ERAS) for gastrointestinal surgery, part 2: Consensus statement for anaesthesia practice. Acta Anaesthesiologica Scandinavica 2016; 60(3): 289-334. [Crossref]

24. Esteban F, Cerdan F.J, Garcia-Alonso M, Sanzlopez R, Arroyo A, Ramirez JM, Fuentes M. A Multicentre comparison of a fast track or conventional postoperative protocol following laparoscopic or open elective surgery for colorectal cancer surgery. *Colorectal Dis* 2014; 16(2): 134-40. [\[Crossref\]](#)
25. Fearon KC, Ljungqvist O, Von Meyenfeldt M, Revhaug A, Dejong CH, Lassen K, Nygren J, Hausel J, Soop M, Andersen J, et al. Enhanced recovery after surgery: a consensus review of clinical care for patients undergoing colonic resection. *Clin Nutr* 2005; 24(3): 466-77. [\[Crossref\]](#)
26. Relph S, Bell A, Sivashanmugarajan V, Munro K, Chigwidden K, Lloyd S, Yoong W. Cost effectiveness of enhanced recovery after surgery programme for vaginal hysterectomy: A comparison of pre and post-implementation expenditures. *Int J Health Plann Manage* 2014; 29(4): 399-406. [\[Crossref\]](#)
27. Bozkırlı BO, Gündoğdu RH, Ersoy PE, Akbaba S, Temel H, Sayın T. ERAS protokolü kolorektal cerrahi sonuçlarımızı etkiledi mi? *Turkish Journal of Surgery* 2012; 28(3): 149-152. [\[Crossref\]](#)
28. ERAS Derneği. ERAS Protokolleri Temel Öğeleri. Access: <http://ERAS.org.tr/page.Php?id=10&Saglikcalisani=True>. Last Accessed: 07/08/2018.
29. Neville A, Lee L, Antonescu I, Mayo NE, Vassiliou MC, Fried GM, Feldman LS. Systematic review of outcomes used to evaluate enhanced recovery after surgery. *Br J Surg* 2014; 101(3): 159-70. [\[Crossref\]](#)
30. Çilingir D, Candaş B. Cerrahi sonrası hızlandırılmış iyileşme protokolü ve hemşirenin rolü. *Journal of Anatolia Nursing and Health Sciences* 2017; 20(2): 139-143.
31. Çelik S, Gürcan M, Karadeniz Çakmak G, Taşdemir N, Dirimeşe E. Fast track cerrahi ve hemşirelik yaklaşımları. *Bilimsel Çalışmalar Dergisi* 2017: 66-76.
32. Gustafsson UO, Scott MJ, Schwenk W, Demartines N, Roulin D, Francis N, McNaught CE, MacFie J, Liberman AS, Soop M, et al. Guidelines for perioperative care in elective colonic surgery: Enhanced recovery after surgery (ERAS(R)) society recommendations. *Clin Nutr* 2012; 31(6): 783-800. [\[Crossref\]](#)
33. Tektaş M, Tektaş N. Meslek yüksekokulu öğrencilerinin zaman yönetimi ve akademik başarıları arasındaki ilişki. *Selcuk University: The Journal of Institute of Social Sciences* 2010; 23: 221-229.
34. Josephs R. Zaman Yönetimi. (Translate: Koşar Ö). İstanbul: Epsilon Publishing. 1994.
35. Lewis D. Bir dakikada stres yönetimi. (Translate: Harmandağlı N). İstanbul: Arda's Publishing. 1993.
36. Scoot M. Zaman yönetimi. (Translate: Çelik AÇ). İstanbul: Rota Publishing. 1995.
37. ERAS Society. Access: <http://ERASociety.org/Successful-First-ERAS-Society-Turkey-Congress/>. Last Accessed: 07/08/2018.
38. Çakabay B, Demirci S, Aksel B, Ünal E, Bayar S, Kocaoğlu H, Akgül H. Mide kanseri cerrahisinde fast-track ve geleneksel yöntemlerin karşılaştırılması. *Turkish Journal of Surgery* 2011; 27(2): 74-7. [\[Crossref\]](#)
39. Öndeş B, Bademci R, Sözüner U, Tüzüner A, Karayalçın K. Major karaciğer rezeksiyonunda ERAS protokolü. *The Medical Journal of Okmeydanı Training and Research Hospital* 2013; 29(3):135-142. [\[Crossref\]](#)