

**DOI**

## **PROJECT PLANNING METHODS OF LIVING IN HEALTH SERVICE**

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The aim of the research is to draw attention to lean project planning methods in health care services and to show at what level health care enterprises affect patient satisfaction and expectations. It is also to identify differences in planning methods, according to which health care providers offer lean health services.

The universe is the staff of the Medicabil Private Hospital. The sample size, which indicates the minimum number of participants to whom the scale applies, was randomly assigned to 100 people. Questionnaire is used as data collection tool. The survey is the Lean Project Planning Methods Survey. It has been applied to health workers in health enterprises.

The research findings were obtained as a result of analyzes using SPSS 23.0 package program on data obtained from employees.

The results were tabulated and evaluated. When questionnaires were assessed, reliability analyzes were applied and responses of the questions given in the survey were tabulated in the study.

In the analysis of the data, the frequency and percentage distributions, the arithmetic mean and standard deviations, the Independent T groups test, the One Way ANOVA, the Levene Test for the homogeneity analysis of group variances, and the Tummy Tests T2 and Tukey Test were used to determine whether the groups differ statistically from each other. A multi-linear correlation analysis was used to determine the relationship levels and directions between the groups.

There is a negative correlation between the level of lean project planning perception in health services and the strategic plan preparation and implementation processes ( $r = -0.284$ ) at 0.01 significance level. As the level of lean project planning perception increases in health care services, the level of conformity of corporate structure to lean project planning is also decreasing.

**Keywords:** Planning, Healthcare, Lean Project Planning

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# SAĞLIK HİZMETİNDE YALIN PROJE PLANLAMA YÖNTEMLERİ

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Araştırmanın amacı, sağlık hizmetlerinde yalın proje planlama yöntemlerine dikkat çekmek, sağlık işletmelerinin hasta memnuniyet ve beklentilerini ne seviyede etkilediklerini ortaya koymaktır. Ayrıca sağlık işletmelerinin yalın sağlık hizmetlerini sunmalarına göre, planlama yöntemlerinde farklılıkları tespit etmektir.

Evren Medicabil Özel Hastanesinin çalışanlarıdır. Ölçeğin uygulanacağı en az sayıdaki katılımcıyı belirten örneklem büyüklüğü, rastgele olarak 100 kişi saptanmıştır. Veri toplama aracı olarak anket uygulanmaktadır. Anket ise Yalın Proje Planlama Yöntemleri Anketi'dir. Sağlık işletmelerde sağlık çalışanlarına uygulanmıştır.

Araştırma bulguları, çalışanlardan elde edilen veriler üzerinde SPSS 23.0 paket programı kullanılarak gerçekleştirilen analizlerin sonucunda elde edilmiştir.

Sonuçlar tablolar halinde elde edilmiş ve değerlendirilmiştir. Anket soruları değerlendirilirken, güvenilirlik analizleri uygulanmış ve ankete verilen soruların yanıtları çalışmada tablolar halinde gösterilmiştir.

Verilerin analizinde, frekans ve yüzde dağılımları, aritmetik ortalama ve standart sapmalar, Bağımsız T gruplar testi, Tek Yönlü ANOVA, grup varyanslarının homojenlik analizi için Levene Testi ve grupların birbirlerinden istatistiki olarak farklı olduklarını belirlemek için ikili karşılaştırma testlerinden Tamhane T2 Testi ve Tukey Testinden faydalanılmıştır. Grupların arasındaki ilişki düzeylerini ve yönlerini belirlemek için çoklu doğrusal korelasyon analizinden faydalanılmıştır.

Sağlık hizmetlerinde yalın proje planlama algılanma düzeyi ile stratejik plan hazırlama ve uygulama süreçleri ( $r=-0.284$ ) arasında 0.01 anlamlılık düzeyinde negatif yönlü ilişki bulunmaktadır. Sağlık hizmetlerinde yalın proje planlama algılanma düzeyi arttıkça kurumsal yapının yalın proje planlamaya uygunluk düzeyi de azalmaktadır.

**Anahtar kelimeler:** Planlama, Sağlık İşletmesi, Yalın Proje Planlama

## INTRODUCTION

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There have been many changes in the daily routine of project planning methods in health care. These changes have contributed to the transformation process of lean project planning methods. The phenomenon of globalization comes first of these changes. Globalization has had important consequences for businesses. One of the important consequences is that the lean project planning methods are moving to the global level. In the global healthcare sector, healthcare institutions have begun to compete fiercely to implement lean project planning methods. With the understanding of lean project planning methods, the period in which we started to make lean project planning according to the needs of the patients and the disease and treatment cycle has been passed from the period in which we focus more on project production. After this period, he went on to understand modern lean project planning methods, in which patients were taken on board and satisfied. Thus, patient satisfaction is the forefront of lean healthcare as a concept. Along with lean project planning methods, there have also been changes in the field of management and some new concepts have emerged. One of these concepts is the concept of lean project planning methods.

Lean project planning as a health business term; regulates the relationship between the health of a health facility and the environment in the face of changing environmental conditions in the long run, and means to mobilize resources to provide superiority to its competitors. Lean project planning, determining lean project planning and lean project planning considerations in health care enterprises are thus important. The need to think lean in health care enterprises has increased after globalization. Lean project planning applications have begun to be made in this axis and positive results have been received. Lean project management is a project-oriented and future-oriented management approach. The concept of lean project planning can be explained briefly as the definition and application of the lean project plan of health care. The lean project plan identifies the objectives and ways of achieving these objectives by analyzing the environmental implications of health management.

Lean project planning management is demonstrated by the demonstrated willpower in businesses for adaptation to change and innovation, and the use of managerial restructuring and resources for this purpose. Lean project planning management is defined as the will, structure and resources that will enable health care to keep pace with the changes in the environment and to continuously renew itself. The main objective of the implementation of lean project planning management in healthcare enterprises is to keep pace with the changes taking place in the external environment and to ensure that healthcare operations are constantly renewed and developed.

Lean project planning management is a lean project-based management approach that determines the long-term performance of a health care operation, decisions made in health care management and the implementation of those decisions. Lean project planning management practices are implemented in healthcare enterprises that are lean thinking and attach importance to project planning. Projects are a plan that takes into account changes in the external environment and which will achieve the objectives of the health care operation. Lean project planning includes management, lean project planning formulations and lean project plans.

### **Lean definition**

In the process of producing lean products and services, we focus on the concept of value from the beginning (raw material) to the end (product / service delivery), destroying wasted resources and minimizing the value during this process, is the name given to the whole way of thinking and management and the systems and techniques applied accordingly (Değirmenci, 2013: 1)

### **Principles of Lean Thinking in Health**

1. Determination of patient expectations in terms of patients and setting of values determined by them.
2. Determining the procedures from the first registration examination to the examination of the patient starting from the emergency service of the clinic

to the polyclinic, from the first registry to the examination, from the surgery to the surgery, from the patient to the exit from the hospital and determining the wasted movements.

3. Removal of wasted activities from reevaluation and ensuring accurate and rapid flow of patient transactions within the value stream process.
4. Providing recruitment of work, patient, and necessary materials between processes and departments rather than work and patient pushed.
5. Formation of visual control systems.
6. Preventing the waste of pharmaceuticals and consumables used in the hospital, ensuring effective purchasing and storage processes.
7. Employees are encouraged to work as a participant instead of going downhill.
8. Continuously improving and maintaining your excellence (Apilioğulları, 2010: 3)

### **Lean Service**

Lean production, which has found itself with Toyota and started to apply in the production sectors for the first time, has recently started to show itself in the service sector as well.

Lean service characteristics are as follows;

1. Reducing performance differentiation between customer and organization objectives, customer-defined flexibility and organization-focused activity together (Liker and Hoseus, 2011: 2).
2. Reduction of the preparation time with application of flow and more efficient production of the drafting system and the application of timely production for both inputs and outputs (Womack and Jones, 2005: 22).
3. Focusing on the value chain, implementation of service designs and value flow charts in the elimination of non-value added activities (Ertürk, 2012: 6).

4. Focusing on customer expectations and increasing customer participation in the design of service packages, training of employees
5. Authorization of employees, improvement of employee's skills, team work and investment in increasing participation (Yüksel, 2012: 9) "

## **MATERIALS AND METHODS**

### **Purpose of the research**

The aim of the research is to draw attention to lean project planning methods in health care services and to show at what level health care enterprises affect patient satisfaction and expectations. It is also to identify differences in planning methods, according to which health care providers offer lean health services.

### **The Universe and Sampling of the Study**

The universe is the staff of the Medicabil Private Hospital. The sample size, which indicates the minimum number of participants to whom the scale applies, was randomly assigned to 100 people.

### **Statistical Analysis Techniques Used in Research**

In the study period, Frequency and Percent Distributions, Arithmetic Mean and Standard Deviations, Independent T-groups test, One-way ANOVA, Levene Test for homogeneity analysis of group variances, and Tamül T2 Test and Tukey Test from binary comparison tests were used to determine whether the groups were statistically different from each other. A multi-linear correlation analysis was used to determine the relationship levels and directions between the groups.

## **RESULTS**

**Table 1. Criteria for Evaluation**

<b>Option</b>	<b>Score Interval</b>	<b>Rating</b>
Important / Dissatisfied / Never	1.00 – 1.99	Low / Low Level
Less Important / Less Satisfied / Not at all	2.00 – 2.99	
Important / Satisfaction / Participation	3.00 – 3.99	Intermediate

Very Important / Very Satisfied / Very Agree	4.00 – 4.99	High / Senior
Extremely Important / Extremely Pleased / Completely Agree	4.01 – 5.00	

In the scales used, the items are rated as 5-point Likert type so that the participants can respond to the expressions. The low values of the scales give a low level in the group and the high values show the high level in the group. The range of points used for evaluating the options is shown in Table 1.

**Table 2. Level of perception of lean project planning methods in health service – task**

Task		Perceived level of lean project planning methods		Total
		Lower	Middle	
Head nurse	Frequency	2	2	4
	Percent	5,4	5,4	10,8
Head nurse assistant	Frequency	0	3	3
	Percent	0,0	8,1	8,1
Responsible Nurse	Frequency	1	3	4
	Percent	2,7	8,1	10,8
Service Nursery	Frequency	3	1	4
	Percent	8,1	2,7	10,8
Polyclinic nurse	Frequency	2	2	4
	Percent	5,4	5,4	10,8
Operating room nursery	Frequency	1	2	3
	Percent	2,7	5,4	8,1
Intensive care unit	Frequency	2	2	4
	Percent	5,4	5,4	10,8

Table 2 shows the distribution of lean project planning methods perceived by level of staff. The level of perception of lean project planning methods in working as assistant nurses is moderate; Service Personnel who work as nurses say that the level of perception of lean project planning methods is at six levels.

**Table 3. Normal Distribution Test for Patient Expectations and Dimensions**

Scale and Dimensions	Kolmogorov - Smirnov Z	P value
Welcome Services Expectations	1.352	0.152
Room Services Expectations	1.435	0.133
Food-Beverage Services Expectations	1.118	0.164
Treatment Services Expectation	1.074	0.199
Patient Expectation	1.109	0.158

According to the test result; ( $p > 0.05$ ), it is seen that there are normal distribution of waiting services, expectancy services, waiting room services, catering services expectation, treatment services expectancy and patient expectancy variables. Parametric techniques were used in the analysis of patient expectancy and dimensions.

**Table 4. Normal Distribution Test for Patient Satisfaction and Dimensions**

<b>Scale and Dimensions</b>	<b>Kolmogorov - Smirnov Z</b>	<b>P value</b>
Welcome Services Expectations	1.214	0.193
Room Services Expectations	1.097	0.167
Food-Beverage Services Expectations	1.347	0.187
Treatment Services Expectation	1.391	0.109
Patient Expectation	1.116	0.145

According to the test result; service satisfaction, room service satisfaction, satisfaction of catering services, satisfaction of treatment services, patient satisfaction variables were normal distribution ( $p > 0.05$ ). Parametric techniques were used in the analysis of patient satisfaction and dimensions.

## **RESULTS**

Lean project planning methods in health care are a type of service developed within the health service world. Health facilities generally function in places where health care services are inadequate. This study emphasizes the importance of lean project planning methods in health service, explains lean project planning management and lean project planning issues and explains their implementation and application levels in health care enterprises and tried to reveal the relations related to customer satisfaction and expectations of these applications. Health care workers participating in the research preferred lean project planning methods. Most of the patients who come to the health care institutions emphasize the importance of patient satisfaction and expectation of having come with friend and friend advice. In general, patient expectations and satisfaction are in the direction of cleaning, cleaning of units, variety of food and beverage, cleaning of rooms, interest and kindness of staff and experience of staff. Employees think that a moderate level of planning for lean project methods is in place at the hospital. Lean



project planning methods deal with the future of the hospital. It determines the mission and vision, goals and objectives by conducting a case-finding for the hospital. In this direction, it also aims to increase productivity, profitability and total performance. Patient satisfaction and expectations in health care enterprises arise with various factors. It is important that the factors that affect patient satisfaction and expectations are taken into account by the hospitals. The implementation of lean project planning practices in healthcare enterprises indicates that these hospitals take into account patient expectations and satisfaction.

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