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Content

A Study Toward Examining the States of Self-Respect of the Students of Health Management

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Abstract

This study was carried out to be able to learn the states of self-respect of the students of health management department. The study was carried out on the students of Seljuk University, Faculty of Health Sciences, Health Management Department The universe of the study consists of 400 people. The sample consists of 250 people. In the study self-respect scale, developed by Rosenberg was utilized. The scale consists of 10 items. While the findings, obtained in the study, are evaluated, SPSS (Statistical Package for Social Sciences) for Windows 20.0 program was used and, for descriptive statistical methods (frequency, percentage, mean, standard deviation) and analyses, independent sample t-test, variance, and correlation tests were used. In order to be able to test the validity of scale, validity and reliability test were conducted.

This study has an importance in terms of that it is the first study examining the states of self-respect of the students of health management. The data obtained in this study toward measuring of self-respects the students of Science of Health Management were analyzed and interpreted. As a result of the study, at what measure self-confidence of the students is, and at what measure they are successful were emphasized.

Keywords:

Health management, Self-respect, University, Students

The concept "self" expresses the idea of individual regarding who he is. Self-respect is a result of that individual sees himself as whom, and of his/her expectations to be accepted or rejected and is a concept expressing whether or not he/she finds himself valuable or at what degree the individual finds himself/herself valuable (Terakye,1989;Baumeister et al,2003;Cevher and Buluş 2007).Rosenberg(1965) defines self –respect as the positive and negative attitude of individual toward himself / herself. Self-respect, besides the person feels himself valuable, proud, energetic, and successful, is a state of self- confidence, and accepting and reflecting himself/herself as it is (Lancer, 2012;Özkan, 1994)..

The satisfaction and honor individual feels with himself/herself, value and respect he/she attributes to himself/herself, and valuableness, importance and respect person forms regarding himself /herself as a result of that he/she evaluates himself/herself can be defined as self-respect (Arıcak, 1999). Self-respect is to be evaluated together with the difference between self –image ,of individual and his/her ideal self . Self- respect is begun to be shaped by the parents in the childhood age. The most important factor in developing self is adolescence period Tözün,2010). Self-respect is based on the concept "self " the person has and low self-respect expresses a case, in which person sees himself as not confident, valueless, and inadequate, and is devoid of uniqueness feeling (Berent, 1994). An individual having a high self-respect feeling feels respect to himself/herself and views himself/herself as a valuable person in society. Low self-respect, in general, means that the individual negatively himself/herself in permanent and continuous way (Fennell, 1997). The level of self-respect influences everything person thinks of and says, his/her world view, views of the other people toward him/her, his/her choices about living, ability to give and receive affection, and strength to get into act to change what are necessary to be changed (Sanford and Donovan, 1984). That person has low or high self-respect affects his/her behaviors in face of events in different directions (Sivribaşkara, 2003). This study was carried out to examine the states of self-respect of the students of health management department.

Material and Method

The study was carried out on the students of Seljuk University, Faculty of Health Sciences, Health Management Department The universe of the study consists of 400 people. The sample consists of 250 people. In the study, self-respect scale, developed by Rosenberg was utilized. The scale consists of 10 items. While the findings, obtained in the study, are evaluated, SPSS (Statistical Package for Social Sciences) for Windows 20.0 program was used and, for descriptive statistical methods (frequency, percentage, mean, standard deviation) and analyses, independent sample t-test, variance, and correlation tests were used. In order to be able to test the validity of scale, reliability test were conducted . As a result of reliability analysis, the value of CronbachAlpha was found as 0.711.

The Findings and Analysis of the Study

The demographic data belonging to the study and frequency analyses belonging to the survey used in the study are presented as follows.

Table 1. Demographic findings belonging to the study

Gender	**n**	**%**	**Educational Status of Father**	**n**	**%**
Male	86	34,4	Primary School	102	40,8
Female	164	65,6	Secondary School	56	22,4
Form	**n**	**%**	High School	68	27,2
Freshman	100	40	University	24	9,6
Sophomore	68	27,2	**Is your mother working?**	**n**	**%**
Junior	82	32,8	Yes	33	13,2
Educational Status of Mother	**n**	**%**	Non	217	86,8
Primary School	132	52,8	**At the moment, where are you staying?**	**n**	**%**
Secondary School	45	18	In dormitory	150	60
High School	29	11,6	In house with friends	54	21,6
University	44	17,6	Together with family	46	18,4
Total	250	100	Total	250	100

When we regard to Table 1, 34.4% of study participants are males and 65.6 % of them are female. 40% of the students are freshmen; 27.2%, sophomores; and 32.8, juniors. According to the educational status of mothers participating in the study, it was identified that 52.8 % of them were at the level of primary school; 18.0%, secondary school; 11.6%, high school; and 17.6%, university. According to the educational status of fathers participating in the study, it was identified that 40.8 % of them were at the level of primary school; 22.4%, secondary school; 27.2%, high school; and 9..6%, university. It was identified that the mothers of 86.8% of those participating in the study were not employed.

Table 2. Descriptive statistics examining the states of self-respect of the students of health management participating in the study

	Right		**Very right**		*Wrong*		*Very wrong*	
	n	***%***	***n***	***%***	***n***	***%***	***N***	***%***
I find myself at least as valuable as the other people	143	57,2	83	33,2	20	8,0	4	1,6
I consider that I have some positive features	134	53,6	105	42,0	8	3,2	3	1,2
I generally tendency of viewing myself someone unsuccessful	68	27,2	123	49,2	20	8,0	39	15,6
I can also do something as much as the other people	119	47,6	112	44,8	18	7,2	1	0,4
I cannot find anything too much to be proud of myself	67	26,8	136	54,4	15	6,0	32	12,8
I am in a positive attitude toward myself	126	50,4	78	31,2	40	16,0	6	2,4
I am generally satisfied with myself	130	52,0	76	30,4	38	15,2	6	2,4
I would want to be able to respect toward myself	14	5,6	49	19,6	73	29,2	114	45,6
Sometimes I definitely consider that I do not serve a purpose	87	34,8	96	38,4	22	8,8	45	18,0
Sometimes, I consider that I am myself not adequate at all	65	26,0	90	36,0	30	12,0	65	26,0

When we regard to Table 2, 90.4% of the students "*feel themselves at least as valuable as the other people"*. 95.6% of the participants *"consider that they have some positive features"*. 76.4% of the students are*in "the tendency of viewing themselves someone unsuccessful"*. 92.4% of the students consider that "*they can also do something as much as the other people"*.81.2% of the students*"could not find anything too much to be proud of themselves*". 81.6% of the students "*are in a positive attitude toward themselves"*82.4% of the students *"are generally satisfied with themselves"*. 78.8% of the students "*can respect toward*

themselves". 73.2% of the students thinks of that *sometimes, they*do not *serve a purpose* . 62% of the students "*consider that they are themself not adequate at all"*.

Table 3. Analysis of one way variance carried out to examine the difference between demographic data and state of self-respect of the students participating in the study

	Class	**N**	**Mean**	**F**	**P**
Educational status of mother	Illiterate	34	2,01	2,665	0,033
	Primary school	132	2,02		
	Secondary school	45	1,82		
	High school	29	2,07		
	University	10	1,8		
Educational status of father	Illiterate	102	1,97	0,173	0,915
	Primary school	56	1,96		
	Secondary school	68	2,01		
	High school	24	1,98		
Form	Freshman	100	2,00	0,243	0,784
	Sophomore	68	1,97		
	Junior	82	1,96		
At the moment, the place you are staying	At the dormitory	150	1,97	0,245	0,783
	In house with friends	54	2,02		
	Together with family	46	1,98		

When we regard to Table 3, there is no significant difference between educational status of mother and mean value of self- respect. For being able to test between which variables there is difference, Scheffe test was conducted and it was identified that there was a significant difference between all variables.

In the study, any significant difference could not be found between the mean values of self- respect and the form, educational status of father, and place the students are staying at the moment

Discussion and Conclusion

In this study, carried out to examine the states of self-respect of the students of health management, the results belonging to the states of self-respect of the students were examined in two parts. In the first part, the results of demographic data belonging to the participants and descriptive statistics were given and in the second part, the analyses belonging to the scales were mentioned about.

A large part of those participating in the study consist of the female students (65.6%) The large majority of the students consist of freshmen. (40 %) . While s large part of the mothers of those participating in the study graduated from primary school (52.8%), the father of large majority of the students graduated from primary school. The mothers of large majority of the students are not employed (86.8%). A large part of the students participating in the study are staying in the dormitory (60%). A large part of the students find themselves as valuable as the other people and a majority of the students consider that they have positive features. In spite of this, the majority of the students generally views themselves as unsuccessful. A large part of the participants consider that that they can also do something as much as the other people and, a large part of the students could not find anything too much to be proud of themselves. A large part of the students participating in in the study are in a positive attitude toward themselves. The majority of the students are generally satisfied with themselves. A large part of the participants can feel respect toward themselves but a large majority of them sometimes think of that they do not serve a purpose. The students consider that they are no adequate at all. It was identified that mother educational status of the students participating in the study affected self-respect. However, the states of father educational status, form of the students, and the place they are stayed at the moment did not affect self- respect. As a result, the students participating in the study are generally in a positive attitude about themselves.

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Innovation and The Idea of Revolutionary Business Culture via The Mood of Kaizen in Health Care Management

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Abstract

Use of kaizen in health care is more practical compare to innovation. Kaizen" is a small improvement that is made by health care staff. It is a small, low-cost, low-risk improvement that can be easily applied. Kaizen is an ongoing methodology and philosophy for challenging and authorize, everyone in the organization to use their creative ideas to make better their daily work.

The word Kaizen is the same with "continuous and sustainable improvement." An effective Kaizen approach is about making development that are connected to measurable results and a aim. "Is there a better way?" is the important question of the kaizen. Hospital organization's team members must ask the above questions. Health care "Kaizen" organizations are learning one that results from the improvement process, via personal pleasure and satisfaction of all who are connected.

Keywords:

Innovation, Kaizen, Six Sigma, Business Culture, and Health Care Management

The types of outcomes in health care are addressed mainly on operational aspects of health business performance. Although, sociotechnical aspects of employees' health, well-being and creativity is crucial in the health care centers, approach to lean improvement in primary, secondary and tertiary centers has moreover been perceived as an inhibitor to an organizations' skill to innovate, as the focus is on improving existing health services and processes, sooner than on finding new ways of doing things. Power of kaizen in health care has become one of the most commonly used improvement approaches in healthcare. This means revolutionary, immediate change that is lasting and effective. While innovation is quick change in status quo of health care, kaizen is small but vigorous and permanent, continuous improvement step by steps (Niemeijer 2010). The meaning of kaizen is "good and never-

ending change" that requiring willingness to work shoulder to shoulder to get the job done by operational management in a project format. The difference between innovation and kaizen is shown in figure 1.

Figure 1. Innovation versus Kaizen

During Second World War one of the American advisors of Japan industry Deming has decided to develop the idea of kaizen by using small steps toward the progress, reduction of waste, fairness for workers and customer by using small cards like in figure 2.

The kaizen template used to document the improvement process at the hospital.

Group: (1)* **Serial Number:** (2) **Area:** ☐ Service ☐ Staff and climate ☐ Quality ☐ Economy			**Kaizen template**
Describe the problem: (5)	Written by: (4)	Date: (3)	⊕
Suggestion for solution: (9)	Responsible: (8)	Date: (7)	⊕
Suggestion will be tested Possible new suggestion: (12)	Responsible: (11)	Tested and evaluated Date: (10)	⊕
Decided solution: (15)	Responsible: (14)	New solution introduced Date: (13)	⊕
Expected results when the problem is solved: (6) / Achieved results (16)	◔ Problem described ◑ Suggestion for solution is decided. Responsible person appointed. Date for start ◕ Suggestion is tested/ evaluated ● Solution is documented (17)		
Voting is performed when needed at point 2 or 3		Approved decisions (18)	

**The numbers into parenthesis were added for the purpose of this article*

Pamela Mazzocato et al. BMJ Open 2016;6:e012256

Figure 2: Small Card Of Kaizen called Kanban (Mazzocato et al BMJ open 2016) Operating theaters

Operating theaters are busy and costly hospital units that need extreme efficiency by eliminating non value-added steps. Therefore, operating rooms/day are important measure indicators. Six Sigma methodologies increased operating room efficiency and financial performance across an entire operating room. Reducing the number of errors made by physicians, nurses and technicians Ameliorating lab turnaround times, bringing to arrangement wait times, dimishing steps in the supply chain, accelerating pay-back for insurance claims, progressing in patient outcomes. Metrics measures are shown in figure 3

Figure 3: Metrics Measures Used in Operating Room Efficiency

Lean technologies like “Kanban” and “Six Sigma” that are an appropriate method to reduce process variation through the difficult practice of operating theaters procedures. Those are metrics and statistical ways to analyze quality.

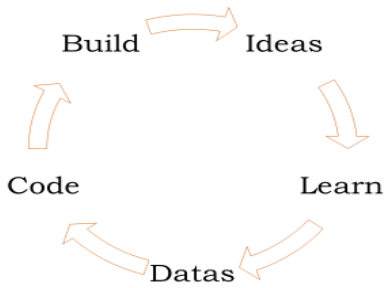

Figure 4: Lean Startup Diagram

The Lean Startup is very simple management system that encourages the health care staff including nurses and physicians (Wang, 2010). 4 Steps to Patient Improving Worksheets. Shown in figure 5.

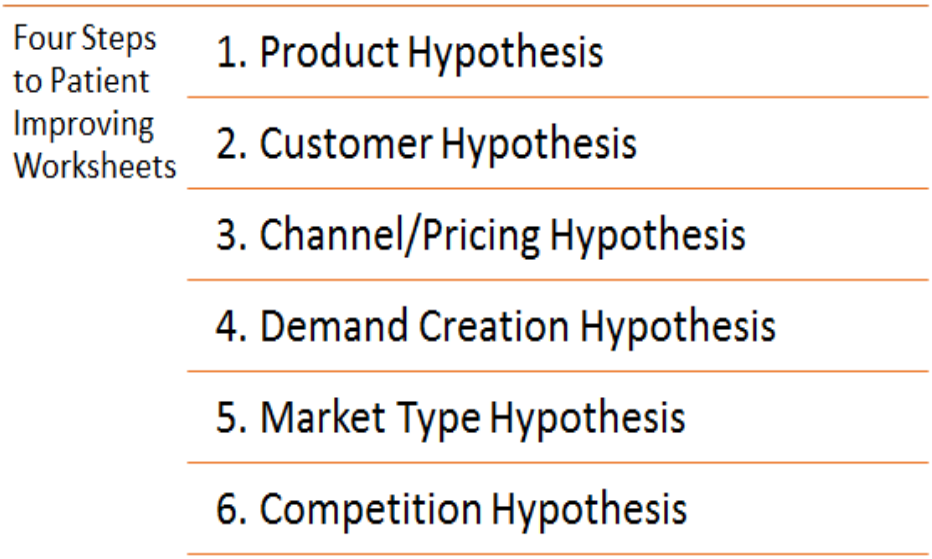

Figure 5: Four Steps to Patient Improving Worksheets

Lean, Six Sigma and other similar management tools are not only limited to fabricating, but have been applied increasingly in the patient and financial health care service, inventory, stock management, information processing, outpatient clinics, and inpatient setting to improve efficiency (Stuenkel, 2009; Cima et. al., 2011).

Results and Conclusion

Kaizen may only work by combining "Kanban" practices with improvement and innovation practices that help physicians, nurses, managers and other health staff. Therefore, health care managers can address more complex issues, such as the improvement of clinical health care processes that cross-organizational and institutional boundaries. Furthermore, the sociotechnical aspects and the partial compliance to the kaizen template can indicate a limited understanding of the entire kaizen process. This limited understanding can ultimately hamper the sustainability of kaizen practices themselves and of their results. Hospital has changed to lean management. The hospital's approach to manage, to change kaizen culture, to improving efficiency. While executive managers are concerned with all ultimate outcomes (efficiency, quality, safety, and patient satisfaction), health staff seem to be to be less related with an improved hospital cost savings and more troubled with improved patient quality, safety, and satisfaction.

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The Imperative Innovations in Healthcare Organizations

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Abstract

Social pressure and populism about the sense of state obligation to provide health care is an essential problem that must be solved. But, in republic state, it cannot be easy to take care of. So, it is sought for the solutions in organizational level in context of productivity, quality, reducing cost, role of health workforce. From this point, changing the method of measuring productive for any health organization to allocate the resources properly, the ways of improving quality by reducing cost, empowerment of health staff, which increases leadership and engagement to ensure improvements for more sustainable healthcare systems are new innovation areas. When considered that the funds which is financed for healthcare expenses cannot be increased because of the fact that there is global recession since 2008. So, global production has been depleting. Accordingly, the aim of this study is to investigate new imperative innovation areas in healthcare organizations for sustainable healthcare system.

Keywords:

Imperative Innovation • Quality and Reducing Costs • The role of healthcare workers • Enhancing Leadership and Engagement

Health care is financed by social state's social security services for many countries. But, the costs of providing quality health have been increasing for years. Specially, debt of states and global economic crisis has been aggravating in this scheme. In this context health care productivity is most essential issue that we must tackle. However; aging population, changing disease form, costly technologies are most observed problems deepening this issue. After all, social pressure and populism about the sense of state obligation to provide health care is exacerbated. All of this doesn't make the sustainability of health care systems possible. Although the remedy of this problem is on health political area, there is something to do at the point of organizational level. When looked over it at the point of organizational area, good information and communication, performance management, team based problem-solving are several solution tools to innovate for new ways to log out from vicious circle. At the center of the tools, there has been management of human resources. When taken into consideration the cost of stolen services for a hospital, approximately %70 of all costs comprising of human resources. In the present case when inflations have been going up for almost country owing to economic recession, reducing the cost of human resources can be impossible for health care managers.

Purpose

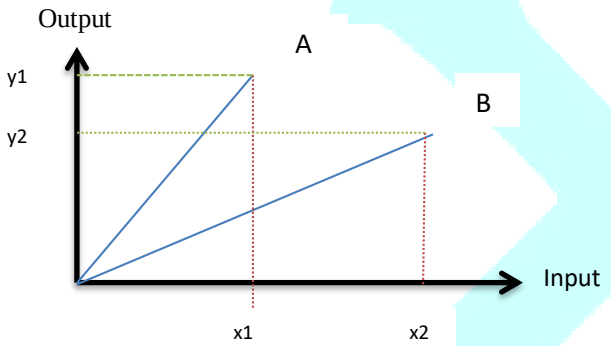
The aim of this study is to investigate new imperative innovation areas in healthcare organizations for sustainable healthcare system.

Method

In this study, it is used literature review method for research concerning imperative innovations for healthcare organizations.

Productivity and Measuring of Health Organizations

When looked to notion of productivity, it is seen that productivity is a ratio between inputs and outputs (inputs/outputs). Generally, it is expected that ensuring maximum output with minimum probable input. While inputs for a health organization are health work force, medical equipment, numbers of bed, outputs are number of discharged patients from inpatient services and outpatient services, performed medical operation and treatment without medical error etc. It can be seen this concept on a graphic below.



When compared with point B, point A depicts more productivity regression line via ensuring more the production with less input. In that case; as long as the regression lines erects, that is, as long as the curve increases, productivity would go up.

Source: Appleby, J. (2012). Productivity in Healthcare. *The Innovation Imperative in Health Care Organisations: Critical Role of Human Resource Management in The Cost, Quality and Productivity Equation*. Edward Elgar Publishing.

Measurement problem of productivity of health care services can be overcame by Atkinson's method as a new innovation. Before Atkinson, National Health Services has described sixteen different types activities to measure the outputs from inpatient practices to emergency practices according to NSH budget allocated to related practices. Atkinson's criticism on measurement of output is that there is no detailed information both costs weights, timeliness and quality of care. Because there were only two categories determining the cost weights as inpatient and day case treatment. Also, General Practitioners' consultations and their cost weights are not measured properly according to Atkinson review. To ensure this, it should be used a computerized information systems to improve output measurement. If miscounted the output, productivity ration would change wrongly. Another approach of Atkinson is that outputs should be embraced the whole course of treatment for any illness. However, generally; investigations, inpatient stays, follow-up are assessed as independent interventions for measuring output. But, they are actually part of related treatment, so we perceive that the consultations for General Practitioners increase in terms of Atkinson. Because of the error evaluation, we must appropriate funds for NHS. Besides, Atkinson suggest that measurement units like readmission rates that defines the unsuccessful treatment for any illness can be implemented for measuring output (Atkinson, 2005; Applebly, 2012). Atkinson's suggestion concerning output measurement in context of quality, there has been more developments in this area.

The Tripod of Improvement as Quality, Productivity, Innovation

The productivity problem can be solved as well as, the real problem is to ensure that with quality generating innovation for total improvement. Besides, main constraint of achieving that success is finance as known. All occurred problems are valid for any health systems. Because expectation of people using health care services, aging population, new medical technologies deepen this issue (Bevan, 2012). From this point, describing innovation concept is necessary. As it is known, innovation is a process ensuring transformation to obtain benefits like reducing cost per capita for patients and health organizations in medical industry. These can be any idea, knowledge or designing any delivery process. Funding constraints enforce thinking on the key that creates innovation. Otherwise, there have been two options on executes' table. One of them is to stop delivering some services or is to work health staff harder (Bessant et al., 2010). Although productivity completely is an economical term, in health industry maybe because of the feature of not tolerating any mistakes, a connection between productivity and quality have been postulating for a few times. When guessed that the healthcare is a process management, as output of that process for high quality requires fewer adverse events and hospital readmissions, lower mortality that reduces costs per capita (Crump and Adil, 2009). However, generating innovation that ensures quality and productivity together is more difficult than expressing what must be done. From this point, generally we have barriers which hinder generating innovation like organizational structure, methods for transformation and mindset about transformation (Kenagy, 2009). According to Baker's suggestions, the framework of innovation includes three types as process, service, and strategy. Relative framework examples are seen below table (Baker, 2002).

Table 1.
Examples of Innovations Types

Process Innovation	Service Innovation	Strategic Innovation
Redesigning the appointment process in the General Practitioner	Creating new specialist services in the community, e.g., intravenous therapy, deep vein thrombosis, complex wound clinics	Transforming the paradigm of urgent and emergency care across the community
Reinventing the triage process in Accident and Emergency	Introducing hyper acute stroke services across the city	Designing radical new integrated models of health and social care for people with long term conditions
Making it easier for patients to order repeat prescriptions	Creating a 'virtual' induction for all newly appointed clinical staff	Shifting power: patients, families and communities as co-creators and producers of health (Doherty and Mendenhall, 2006)
Redesigning the job application process within recruitment and selection	Radical redesign of the clinical pathway for people who break their hips	Transforming the paradigm of urgent and emergency care across the community (Bevan, 2013)

Source: Baker, K, A. (2002). Innovation. http://www.au.af.mil/au/awc/awcgate/doe/benchmark/ch14.pdf, Accessed Date: 20.01.2017

According examples of innovation types; while process innovation generally points out improvement of service process by making some changes to facilitate the transactions of patients, service innovation points out the introducing new serves, specialist or any new application out and out. When compared, although quality and productivity achievements of service innovation is especially more than process innovation, it is seen that services innovation have risky more than process innovation. Because, services innovation requires more coordination between all of organizational functions (Bevan, 2012). So that being successful in context of output of service innovation, there are some features according to Parker's review; integration, substitution, segmentation, simplification as shown in the table below (Parker, 2006).

Table 2.
The features of service innovations

Integration	**Generating connection between healthcare and social care creating flawless integrated care**
Substitution **i. Location Substitution** **ii. Skill Substitution** **iii. Technological Substitution** **iv. Clinical Substitution** **v. Organizational Substitution**	Delivering higher value healthcare, lower cost for patients i. Creating high technical environment for patients ii. Empowering health staff; enabling nurses to prescribe drugs, a role that was previously carried out by doctors iii. Benefiting from health technologies facilitating process for both patients and health staff; using self-services applications online for appointment or screening medical imaging iv. Shifting from medical care model to community care or family or self-care model v. Ensuring contributions of voluntary and community groups or social enterprises to the healthcare and social care apart from traditional medical organizations
Segmentation	Grouping the patients by their specific requirements and designing discrete services for them by ensuring them to get these services whenever they want and need.
Simplification	a. Counterbalancing the risk of creating extra structures and extra complexity b. Ensuring adds value for patients in exchange for each innovation step c. Minimizing potential additional costs as a result of innovation d. Cutting-out any activity, application or process which are not necessary and does not include the value for patients

Source: Parker, H. (2006). Making the Shift: a Review of NHS Experience. *Coventry: NHS Institute for Innovation and Improvement*

Strategic innovation commonly emphasizes an approach which creates new models for delivering health services for near future. From this point, health managers must think on it by considering available source like human resource, financing constrain, the changing needs of those who use health services due to for example aging population.

Another issue on innovation is the process from generating to implementation of it. On this point, the NHS Institute for Innovation and Improvement presents five stage process which enable NHS frontline staff and leaders to assess and stimulate service innovations for quality and productivity improvement. First step is to assess the new potential innovative idea by health staff in context of the performance. Main search topic in this stage is whether it would create quality and cost improvement. Second step is to benchmark the idea in other health organizations across the world. The third step is to assess the magnitude of the idea which would generate in the organization. Main search topic in this stage is to compare the idea to the past application, process or service type. In fourth stage, extra solution recommendations are sought in the framework of this idea to make it perfect for obtaining more benefit. In the final stage, summary statement is developed to begin for implementation of the innovative idea (Maher et al., 2008).

When taken into consideration the notion innovation to gain improvement for patients and health staff, innovativeness is everyone's responsibilities from frontline health staff to community groups or social enterprises and requires organizational culture which all organization members know that innovativeness is imperative approach in condition of environmental change (Bevan, 2012).

Raising Quality and Reducing Cost

Although cost saving motivate health manager and policy-makers, this interest is limited to them. Because, main focal point in healthcare is avoiding from adverse events like malpractice. Thus, quality in healthcare comes to the forefront. But, it is suspected that quality increases the costs of healthcare. But, it is seen that quality is misunderstood. In this respect, quality improvements, in other words value improvements which raises quality and reduces cost simultaneously must be realized for sustainability. In addition to personnel shortage, demographic changes, more expensive treatments, health technologies, increasing demand for healthcare deepen that problem (Øvretveit, 2012). In literature, there are two type costs. One of them is the cost of poor quality. Hospital-acquired infections, adverse drug events and misuse or misuse of healthcare have been generating the cost of poor quality (Øvretveit, 2009). For example, it is estimated that, adverse drug events related to the cost approximately £1.9bn a year (The Guardian, 2008) in National Health Serves' hospitals in UK. Also, it is known that patients with chronic diseases' avoidable emergency admissions are high. Besides, implementation of quality improvements can be costly, especially in services with little experience or infrastructure to support improvements (Øvretveit, 2009). But, some improvements by raising quality have ensured reducing cost. For example, 5 million dollars saved in Hospital of the University of Pennsylvania in Philadelphia in exchange for $85,607 investment which supported improvement team working on raising quality (Martin et al, 2009).

Although cutting back on some healthcare services is seemed simple-solution, in the countries where social pressure and populism about the sense of state obligation to provide health care have been is real hard. From this point, health managers and other stakeholders have been seeking solutions which provide both quality and reducing health cost. Secondary and tertiary healthcare services consumes majority of financing sources. Therefore, many improvement areas focus on these services. Within the scope, the study of Marshall and Øvretveit gives us some possible examples that reduce the costs without compromising from the quality of healthcare (Marshall and Øvretveit, 2011).

Table 3.
The areas which requires improvement with their examples

Category	Specific areas	Examples, where available, claimed value of interventions or examples of possible savings
Improved commissioning	Better prioritization of what will be purchased and improved selection of patient for interventions Reduced unplanned admissions Promoting self-care and case management	5-7% reduction in NHS spend in 2013/2014 in comparison with 2008/2009

Better organizational business processes	Better use of estates	%20 reduction in estate costs, realizing approximately £500 m/year
	Sharing of business services to reduce support costs	20-30% lower costs for same level of service
	Better procurement	There is a 100% variation between the highest and lowest prices paid for common items
	Staff productivity	Nurses in the UK spend about half as much time in direct patient contact as their US counterparts
	Sickness absence	Up to 40% reductions in sickness absence have been achieved by some organizations
	Skill mix	Costs could be reduced by 8% by adjusting skill mix of service line staff
Better clinical business process	Implementation of NHS Institute's productive ward series	£1300m saving
	Reduced length of stay	£1230m saving
	Reduced new to follow-up ratios for outpatients	£249m saving
	Reduced Did Not Arrive rates	£207m saving
	Reduced readmission rates	£108 m saving
	Better management of leg ulcers	£1050 m saving

Improved quality of patient care	Reduced Health Care Acquired Infections	£1000 m saving
	Reduced drug errors	£750 m saving
	Implementation of NICE guidelines	£600 m saving
	Improved nutritional care	£130 m saving
	Better management of patients with diabetes when in hospital	£105 m saving

Source: Marshall, M., & Øvretveit, J. (2011). Can We Save Money by Improving Quality?. *BMJ Quality & Safety*, BJM-2010.

As seen in the table above, remaining be healthy seem exact solution to reduce the costs. In addition, long length stay and Health Care Acquired Infections are interrelated in context of both services quality and reducing costs. Because, when an inpatient stayed long time in any hospital, the risk of Health Care Acquired Infections increases. So, while treatment costs increases, quality of patient care decreases because of it. Eradication of Health Care Acquired Infections in any hospital is quite difficult and costly. We must take into consideration that realizing expenses to get quality improvements (spending cost) doesn't always present desired results in context of increasing cost. Also, desired results wouldn't get in near future. Because quality improvements require investments moneywise. Therefore, it is important to invest in the right areas which ensure both quality improvement and reducing costs for the future in this regard. As it is known that the providers are responsible for ensuring it. From this point, there are some overall steps to initiate the change which ensures reducing costs by improving quality. So, generally all successful changes need selecting accurate solution, implementation accurate method and attention to people aspects. Accordingly, relative overall steps are as the following (Øvretveit, 2012);

1. Selecting accurate solutions which have been proven when compared with similar services.
2. Staying in touch with health staff neutrally to determine the negative and positive sides of the solution for the implementers
3. Verifying the solution by comparing poor quality cost and the spending cost financially before the implementation
4. Adapting the solution using the accurate methods and others' expertise and experience
5. Measuring and monitoring progress after the implementation
6. Taking support from others for removing external obstacles to build improvement capacity

The most important step maybe is selecting the appropriate solution. For this, some suggestions which specify quality deficiencies from both patients and health staff side should be listed. These patient complaints or health staff report related to their work is used for determining how the problem affects to the stakeholders as severity. Then, according to the prepared list, other list is generated by determining the wasted time and resources as money because of them. Even though some problems might be critical; most affected to stakeholders and costly, there is another step to accurate solution. That is, poor quality cost and the spending cost must be compared financially. From this point, it is analyzed whether the spending cost is worth for quality improvement related to the solution.

In literature, it is named as cost-effectiveness analyze. So, another list is generated from this respective and an attachment which shows what resources as personnel, money, equipment needed is added to the last list (Øvretveit, 2012).

With all that, there are some obstacles stalling the improvements. Although they may be categorized under some subject headings, can be summarized shortly. Lacks of service information to specify and prioritize, of information about effectiveness in context of economic analyses to enable quality work are some arising information. Also, uncertainty and skepticism about spending time and source in context to the success diminish level of motivation for improvement generating the innovation (Øvretveit, 2012).

Although there are some negative factors stopping the improvements, there are also some positive factors which can enable the change for innovation. One of those is strong leadership that has awareness of the importance of the gains that would get. At the same time, it is important that the existence of senior management which knows the difficulties of change and steers their team for implementation. Other important point is to train health staff about quality and improvement tools which would raise consciousness to the change. Also, it is necessary to reconcile the conflicts among healthcare services (Walley et al, 2006).

The Role of Healthcare Workers on Innovation

The most important role in creating innovation surely is on healthcare workers/health staff. Specially, frontline health workers who communicate with patients firstly when they come to any healthcare organization are critical for transmitting a lot of information which can be used for determining innovation aspects. Because, they generally take responsibility many main jobs of the organization. In this respect, having creativity of health staff is facilitator for both the patients and themselves.

Commonly, it is seen that creativity is described as generating original and unique ideas or solutions on behalf of both patients and health organizations (To et al, 2012). As known, whereas creativity is the generation of novel and useful ideas, innovation is the implementation of the ideas (Man, 2001). Besides, generated ideas must be useful. But, notion of usefulness cause the conflict of interest between different stakeholders of the organization. For example; while any generated ideas or solutions from top management of a for-profit hospital to increase profitability might be so useful in context of creativeness for innovation, it can might a burden for frontline health worker or patients (George, 2007). In this respect, enforcing health staff to be creative can be possible when they feel and know that it is necessary for both themselves in terms of their economic or carrier gains and the organization' success. When generally examined, it is known that job complexity, relationship with supervisors and co-workers, rewards, time deadlines and goals, spatial configuration of work settings are determinative factors for creativity resulting in innovation (Shall et al, 2004). For example, according to a study which carried out by Aiello et al; individuals working in low spatial density areas exhibited higher performance on a creativity task than individuals in higher density areas (Aiello et al, 1977). Similarly, according to a study conducted by Tierney et al; even if workers have ability to be creative at work, they need to encourage from their supervisors by assigning to appropriate jobs for innovation (Tierney et al, 1999). The communication between health workers and their supervisors matter in defining the true worker to true job for innovation. From this point, trait activation theory presents more expositional approach in context of creative for innovation. According to trait activation, individual' predispositions towards their jobs affect revealing the creativity with organization structure simultaneously. (To et al, 2012) Thus, health staff needs to declare their propensities' freely. So, receiving positive feedback from their

supervisors or co-workers which creates social appreciation and having flexibility on the work reinforce affirmative organization structure (Zhou and Goerge, 2001). Another factor affecting the workers' creativity is to reward. In literature, it is generally defined as extrinsic rewards. It is commonly accepted that when workers have autonomy, extrinsic rewards can enhance the intrinsic motivation ensuring for innovations (Malik et al, 2015). Creativity in the nursing care having pivot role in delivering healthcare for credibility of any healthcare organization can have more effective results. It is seen that nurses' creative activities ensure improvements in quality of care (Isfahani et al, 2015a). In this respect, even though behavioral treats and collective mindset may be obstacle to creativity for innovation, leadership and technology which can be never substituted instead of nurses may be helpful tools for it (Hughes, 2006).

The real problem is generating the environment which gives a chance in creating new ideas for realizing innovations in health organizations. It can be benchmarked from Total Quality Management System for solving that problem in particular from Toyota Experiences. Toyota Company developed quick feedback system for all its workers to get original ideas which can be harnessed. Ideas were collected through supervisory channels, 'scratch sheet' on walls or quality control circles. The name of the feedback system which stimulates the 'feeling of involvement' was 'Individual Quality and Productivity Program'. In compliance with this program, all workers had a quota and a date to fill their slot on the board to express their ideas. Also, all workers must implement their idea and specify the gains from it in context of saving, impacts on external or internal customers. Many ideas don't require money to implement (Godfrey, 2003). Similarly, Toyota Company was aware that the idea which was handy for company wouldn't come up with itself. Thus, training the workers for creativity took an important place. Within this scope, the seminars had been conducted to teach some techniques which was known as quality tools like brainstorming to workers for revealing their creativity (Godfrey, 2003). As seen, Toyota Company has established the essential environment to the creativity of worker for innovation.

The example of Toyota gives us that revealing the creativity of workers is possible. We can adopt similar methods in order to reflect the creativity of works on innovation. One who knows the doing best is the one who carry out. So, the improvement areas would be determined by surely health workers easily. For example, even though it is useless, supporting a nurse creating a robot for pulling the patient's legs during the orthopedic surgery by encouraging might create many health workers having patent (Isfahani et al, 2015b).

Enhancing Leadership and Engagement for Organizational Performance

The term of employee engagement have been studying for years. When considered in context of fulfilling of health works role on innovation, engagement becomes surely very important issue. It is possible to describe the employee engagement. According to Perrin, employee engagement is a model which consists of 'Think', 'Feel' and 'Act' sectors. Think sector points out that rational understanding of the organization's strategic goals, values and their 'fit' within it. Feel sector also points out that an emotional approach or an attitude of the worker to them. Finally, act sector points out that a willingness of the worker to do more than the minimum effort in their role. It has a motivational feature. Besides, employee engagement has impact on financial performance of the organizations. According to a study involved fifty multinational companies, companies with high levels of employee engagement

outperformed those with less engaged employees in operating income, net income growth and earnings per share as financial performance. At the same time, it is known that there is a correlation between improvements in employee engagement and customer satisfaction (Perrin, 2009).

Employee engagement has effects on many dimensions of organizations. When engagement begins to decline, it seen that a remarkable drop in productivity, lower customer services and more absenteeism and turnover are observed. Therefore; sustainable engagement is required. From this point there are some suggestions in different areas for enhancing employee engagement (Watson, 2012).

Table 4.
Priority Areas of Focus on Behaviors and Actions that Matter to Employees

Leadership	**Stress, balance and workload**
Is effective at growing the business	Manageable stress levels at work
Shows sincere interest in employees' well-being	A healthy balance between work and personal life
Behaves consistently with the organization's core values	Enough employees in the group to do the job right
Earns employees' trust and confidence	Flexible work arrangements
Goals and objectives	**Supervisors**
Employees understand	Assign tasks suited to employees' skills
The organization's business goals	Act in ways consistent with their words
Steps they need to take to reach those goals	Coach employees to improve performance
How their job contributes to achieving goals	Treat employees with respect
Organization's Image	
Highly regarded by the general public	
Displays honesty and integrity in business activities	

Source: Watson, T. (2012). Global Workforce Study. *Engagement at Risk: Driving Strong Performance in a Volatile Global Environment*.

The level of employee engagement in healthcare organization has been measuring through some developed scales like Cornerstone survey. Generally, Cronbach Alfa Coefficient values can vary from 0,70 to 0,93 (Spurgeon, 2012; Cornerstone OnDemand, 2014). For example, according to Cornerstone OnDemand's research, it is dawned on that 49% of health workers aren't fully engaged and the change is a treat for it. Also, workload is an obstacle for employee engagement (Cornerstone OnDemand, 2014). But, it is possible to increase level of engagement in health organizations. Everything for engagement starts with senior management's leadership. When tackled the notion of employee engagement in context of leadership, it is seen that there is a connection between leadership and employee engagement. It is known that when a leader demonstrates emotional support and recognition for employee suggestions to the organization contribute to employee engagement (Moss, 2009). For example, according to a study conducted in Tilburg University, it is confirmed that there is a correlation between transformational leadership and innovative work behavior of workers statistically. We can see some examples of leadership in the field; MD, Chair of the Department of Medicine at the Hospital of the University of Pennsylvania in Philadelphia Richard Shannon, got ahead improvements in hospital-acquired infections which saved 57 lives by supporting physicians, pharmacists, nurses systematically (Martin et al, 2009). Also, perceived organizational support effects innovative work behavior with self-efficacy according to the study (Kroes, 2015). Then, developing mutual trust and respect health staff and managers is next step. From this point, sincere and transparent communication for overcoming some problems related to the change. The next is also encouraging health staff to take the responsibility which they may specify. Later on, empowerment of health staff gains importance (Atkinson, 2011). Specially, coming together within the scope of the common purposes among health staff, realized empowerment through training for the issues which they don't know well would enhance the communication and

awareness of being a team in context of adoption the organization. Thus, possible conflict of interest among healthcare services could be minimized. The team spirit would also create organizational image towards the stakeholders outside the health organization. In this way, organization's core values could be adopted easily. Charging a health worker who adopts the core values of organization would get easy within the scope of a project. We know that healthcare organizations work on project basis. Each project is any patient receiving healthcare. For example, the health workers who meet up in the operating room from different branch of medicine to execute an operation bring about a team for the patient (a project). But, the team could change based on any patient who require different treatment. From this point, empowered health workers could warn each other to hinder undesired medical errors unfortunately in this way. Specially, doctors are natural leaders among health staff. Because, the progress of treatment and examination are shaped by doctors' medical decisions and other health workers act in accordance with them. To show effective leadership doctors need to train in order to obtain information which is outside medicine. Accordingly, the American Hospital Association (AHA) published a skillsets developing leadership of doctors. Relative training areas are as follows (Combes and Arespacochaga, 2012):

Table 5.
Training areas for doctors

Leadership training
Systems theory and analysis
Use of information technology
Cross-disciplinary training/multidisciplinary teams
Understanding and respecting the skills of other practitioners
Additional education around
Population health management
Palliative care/end-of-life
Resource management/medical economics
Health policy and regulation
Interpersonal and communication skills
Less 'captain of the ship' and more 'member/leader of the team'
Empathy/customer service
Time management
Conflict management/performance feedback
Understanding of cultural and economic diversity
Emotional intelligence

Source: Combes J.R. and Arespacochaga E., (2012). *Lifelong Learning Physician Competency Development.* American Hospital Association's Physician Leadership Forum, Chicago, IL

Conclusion

As seen, there are many areas which need to be improved for both patients and health organizations' performance. When it is considered that future healthcare organization can put these improvements which ensure innovation would create more quality services and solution oriented healthcare organizations for sustainability.

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People Demand for Health Insurance and Social Security in Global World

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Abstract

Rich, middle and low- and middle-income countries are concerned in managing health and social insurance systems for their citizens to finally cover their whole residents. For those countries interested in such an extending, it is important to understand the factors that pretend the change from deficit to universal coverage. In order to avoid effect of health and job loss insurance system is the consideration of the highest we would pay, over and above the awaited loss. If people gets ill and lose job many time in that case they would expect to pay highest amount of money for their insurance. Friedman, Savage, Ehrlich, Becker argued that the demand for health and social security insurance is important if the event occurred many times. Health and social insurance schemes are progressively accept factor as an implement to finance health and social security in developing countries to cooperatives design business. There is need for economic assistance at the public level for cooperative union in the homeland and all over the world.

This paper analyses the social security and health insurance in the global world. It indicate the consequence of the socio economic and political context, especially in relation to the level of income, design of the economy, communication of the population, skill to manage and level of accord within the country, but also emphasize the important handling role of government and public funding that can play in simplifying the passage to universal coverage via social health insurance.

Keywords:

Health insurance, Social security, Demand, Finance, Cooperative

Health Care Insurance

In several countries, demand from people for health care services is very high, it has been argued that if social health insurance may improve quick access to health care sustainable financing will be very hard. While cost recovery strategies like user fees have been heavily criticized, the option of insurance seems to be a encouraging alternative as it is a possibility to pool risk transferring, Unpredictable health care costs to fixed premiums. Recently, mainly in developing world but also in a diversity of other countries, non-profit, reciprocal, community-based health insurance plan like cooperative business have come out. These themes are present by an ethic of mutual aid, solidarity and the collective pooling of health risks. In several countries these schemes perform in co-occurrence with customer and healthcare supplier, mainly hospitals via family practice centers in the area. Most of the customer job range from as shown in figure1.

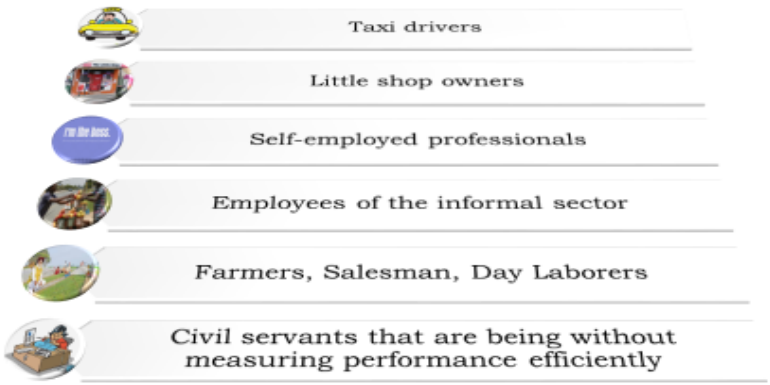


Figure1: Most of the customer job

Even so, this heterogeneous group shares the same lack of access to health care that is often due to poor health care fund. Demand for health care falls if country gets rich without offering compulsory health care coverage. This suggest Even so, this miscellaneous group shares the same lack of access to health care that is often due to poor health care fund. Affordable tax or health insurance premium paid preventive care and primary health care may cut down on health consumption if primary care is a compulsory access point for prevention, nursing and treatment.

The poorest 10% of households pay eight percentage points more of their revenue in all taxes than the richest – 43% compared to 35%, according to a report from the Equality Trust. Therefore, the poor people in a developing country will pay for rich people for a consultation with a hospital doctor and informal payments will be major in many public health care systems. These kind of informal payments are especially widespread in the former collectivist and state capitalist developing and transition countries because economic and socio-cultural environment is more favorable to “gifts”-exchange as a means to support the underfunded health care system.

Social Security Insurance

After 1990s as a result of demographic change, high public debt and low employment and ineffective performance based employment rates like civil servant etc economic problems of 2004–2008 has begun. In many developing countries, the process of building large social security systems is far from absolute. Particularly in developing and transition countries, which have been adversely affected by fragility of economic traditional systems of social conservation have come under greater pressure due to increasing misery. In lifetime, there are some clear period/necessity that can be met with education and information, and by using new device like Internet.

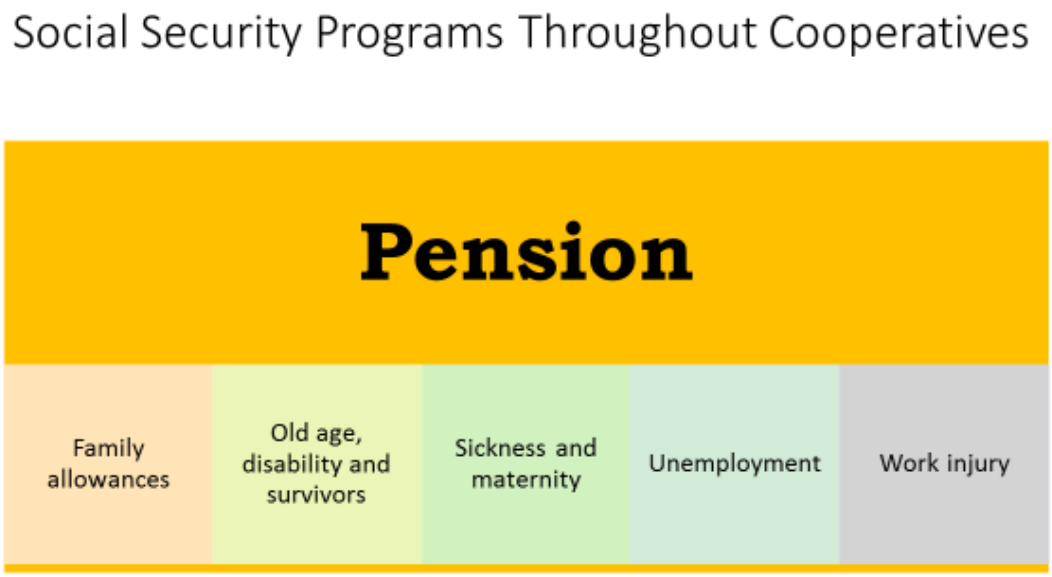
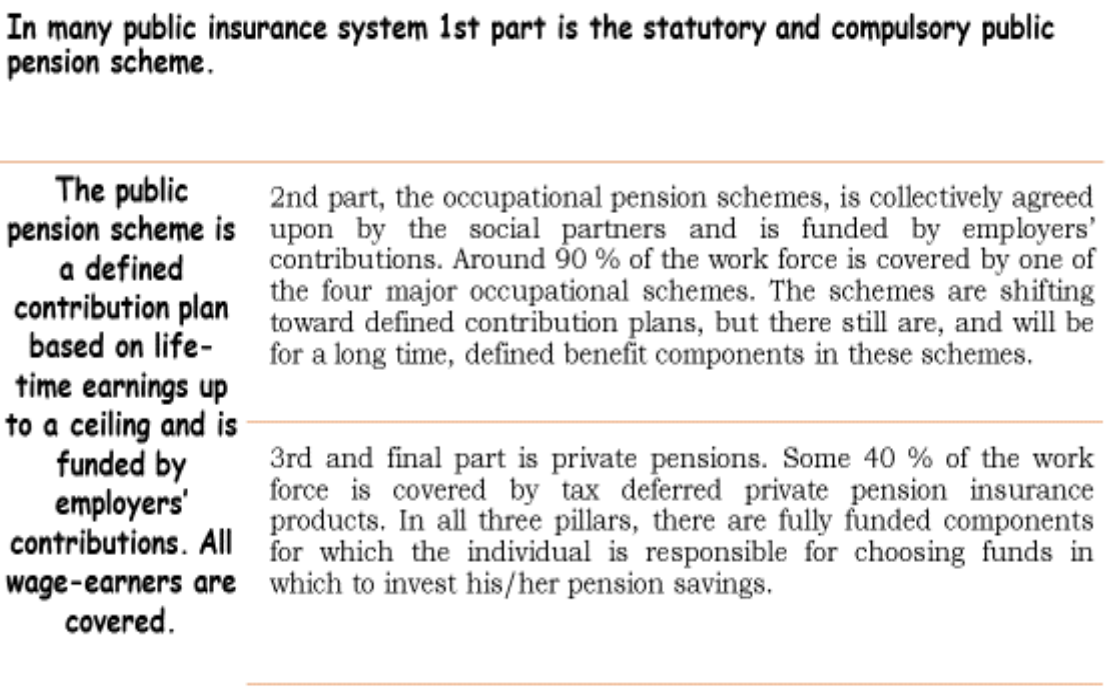


Figure 2: Social Security Programs

Nowadays, young adults and new parents entering the labor market must be able to balance their finances and understand such issues as social security insurance, savings, and pension/alternative funding, in order to provide for protégé in the long term to prepare for and adjust to reduced income. The impact of financial and economic crisis on retirement incomes will be difficult for many people, in both public and private pension schemes. There are still many economic, demographic, financial and social ambiguity in pension systems. One of the key lessons is that risk cannot be eliminated: it can only be reduced by differentiation retirement-income provision like cooperatives business. Tripod of social security schemes are shown in figure 2.

Beginning of the 20th century there were 10 people of working age for every person who had retired. Whereas in 21st century three to one is the new ratio nowadays. In very new future like 2040 it is estimates that there will only be 2 people of working age for every person receiving a pension in developed world and perhaps one to one in developing one. Better not to mention underdeveloped one.



Tripod of social security schemes are shown in figure 3.

According to social security and health care insurance management the message is very simple because if someone need health care or retirement, they will provide for them their own retirement and insurance packages, as the public driven system simply will not be able to do it for them. Since October 2012 a new retirement pension model and clinical commissioning health care services were offered peoples owing to the fact that many people in western developed countries (even in public and private sector) have not been providing for their retirement pension – and faced with a potentially serious burden on the public fund. As a result the government has acted with the much-announced design 'auto-enrolment' like co-operative sector. The government is carry out to this rules being successful and there will be firm punishment for unsuitability. These regulation has already started for large employees and small medium enterprises like 50-249 employees. To begin with, the assistance levels required by auto-enrolment will be relatively low, starting at 2% with the contribution split between the employer and the employee. Initially, the government's focus is on making sure everyone is enrolled in a pension and health care scheme. The minimum contribution rises quickly, Three period of the process are summarized in figure 4.

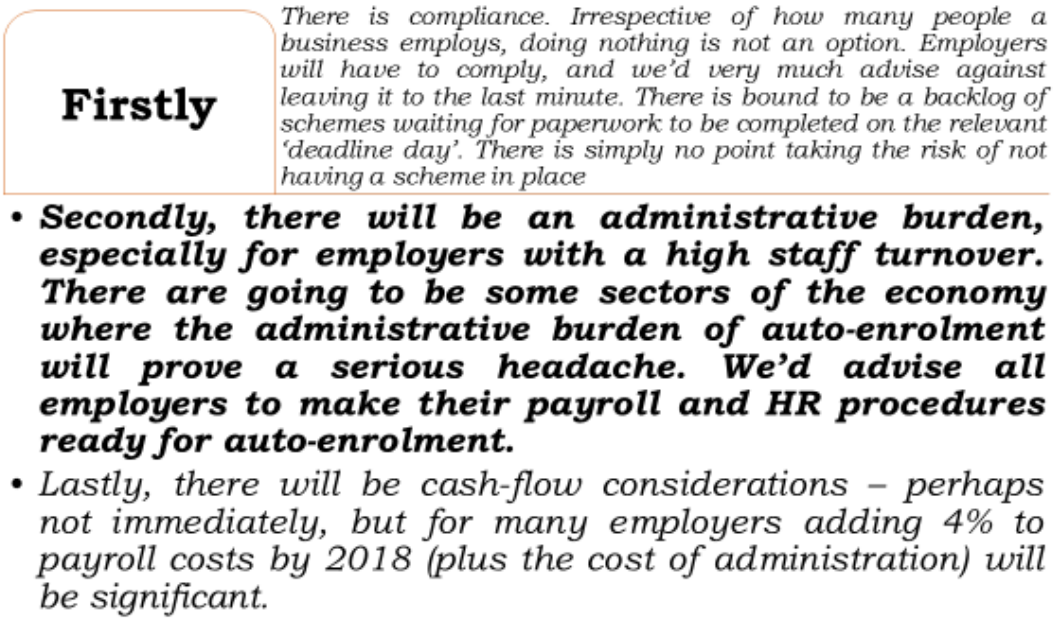


Figure 4. Three period of pension model

Beginning from April of 2016 even the small firm that have or fewer staff will start to use this cooperative health insurance and retirement pension models until May 2017 when all company should have a design in place.

Results

Health and retirement Co-operative are called Co-ops "Wealth" and there is currently helping each other. For instance Unicorn Grocery Co-operative, NEST, Aviva, Standard Life and Royal London, which is a mutual insurance systems. Essential Trading Co-operative as well as The Plunkett Foundation are some examples. In some coops the workers are the member-owners. In others it is the people who are receiving the services. In many the member owners include workers, clients, families, community supporters. Each cooperative is unique because each responds to the needs of its community. For example; "Cooperativa Multiactiva Corazón de Jesús", established a health center that is staffed by a doctor, an orthodontist, and two nurses to provide health care to members as a consequence of the poor treatment miners received in public health institutions. There is also need for financial support at the national level for cooperative federations in the country and all over the world. Health and social security cooperatives facilitate access to health care. Since 2005, an association to promote social security cooperatives, "Desarrollo de cooperativas sociales (DESCOOPSO)", was founded to encourage skills development founded to promote skills development and employment proficiency for isolate or helpless groups which are formed by individuals and their families to create labor.

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eHealth: From Hospital to Mobile Devices Tele Ophthalmology, a Best Practices Case in Netherlands

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Abstract

Problem and Contribution: In developed countries, absolute hospital-oriented health service provision is not sufficient anymore subject to increasing demand of aging population toward health services, difficulties experienced in accessing health services due to geographical and economic reasons, long patient wait lists, increasing health service costs, follow-up of chronic, handicapped and aged patients, information need of health service providers and patients, mobilized life style of today's society and increasing person-oriented health service. Within this scope, some countries, in pursuit of transforming and developing their health services, transited into **"eHealth system"** through the information and communication technologies. In this regard, various applications such as "Tele-medicine, Mobile Health, Digital Hospitals, Robotic Health, and Electronic Health Records" have been put in practice.

The purpose of the present study is to investigate theoretical and practical dimensions of the **eHealth** system introduced in recent years and "Tele-Ophthalmology Diseases" system applied in Netherlands, having one of the best health systems of the world, as the best clinical practice.

2. Method: Theoretical section of the study was prepared based on the reports published by the World Health Organization (WHO) about the **eHealth**, Reports published by the Netherlands Ministry of Health and on available literature on the relevant subject. The **field research** of the study was conducted through interviews regarding **e-Eye** Health in Netherlands, one of the prominent countries of the world in terms of **eHealth** area, in the period of **June** 5-12, 2016.
3. Findings: 83% of patients with eye disease examined through the eHealth system were held at the first tier so that significant cost advantages could be obtained. Whereas wait lines were reduced, access to the service was facilitated in the Ophthalmology Clinics.

Keywords:

eHealth, Tele-medicine, Tele Ophthalmology

Radical changes in the information and communication technologies along the last three decades have significant impact on all sectors. As technology usage has penetrated in all areas of life, service provision reached beyond space and time limitations. Similar evaluations have been experienced in the health system constituting focal point of the present study. When health systems in developed countries are considered, it is possible to observe that technological applications such as "**eHealth,** Tele-medicine, mobile health, digital hospitals, and Robotic surgery" are utilized in all levels of the health industry. Similar to other industries, utilization of technological tools in the health domain has evolved structure of the given services, its way of provision and its orientation. On the other hand, such practices have allowed **tailor-made** health service; and introduced side benefits such as reduction of costs and patient wait time. For instance, **50%** of the mental patients in Netherlands which constitute sampling group of the present study and having the best **Health and eHealth** systems of the world are diagnosed and treated through the "Tele-medicine method (video conference)" without necessitating them to paying visit to hospital; and patient wait lines, hospitalization periods and health related costs have significantly reduced.

Again, current health investments of countries are considered, countries transited into the **eHealth** system make investment into **Health** technologies rather than opening larger hospitals. These investments have made contribution in expanding health service range from face-to-face service in hospital environment to larger service receiver groups located in long distance (by means of Tele-medicine and mobile practices). Thus, health services have been free from limitations of time and space in reaching individuals. Based on this feature, contemporary **Health** services approach differs from the conventional approach (hospital-oriented health service provision) remarkably. Owing to **eHealth** practices harnessed by the most advanced health systems of the world, dependency to hospitals has reduced; instead, demand towards mobile applications and health technologies capable of providing 7/24 service and which could be accessed by everyone has significantly increased. For example, as of 2016, 20 EU-member countries employ **eHealth** system actively.

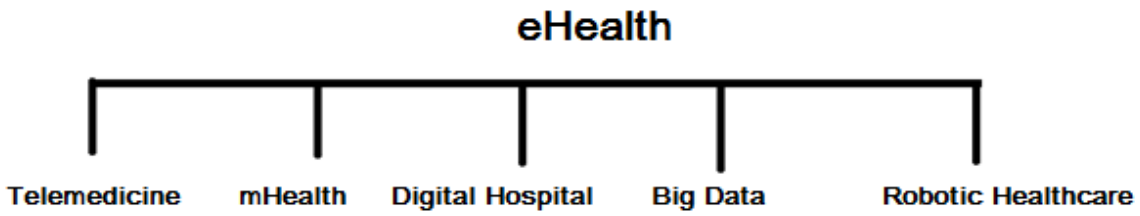
Descriptions

eHealth (eHealth): The European Union Health Commission describes the eHealth concept as "utilization of information and communication technologies (network connections, mobile software, Robotic practices, smart phones, data bases, video conference etc.) in health services to prevent diseases, diagnosis and treatment, monitoring and management of health" (www.*ec.europa.eu*). The "e" reference used in the beginning of the **eHealth** concept **implies** "Electronic, digital, internet-based, effective, fast, information-oriented and technology" nature of health services**.**

Long distance video-conference information exchange in health services until 2000s has been referred as **Tele-medicine** (Mea, 2001). However afterwards, **"eHealth/ eHealth"** concept has started to be used as more comprehensive concept and as **main title** upon introduction of usage of different information and communication technologies such as "mobile health (m-health), digital hospitals, Electronic Patient Records, Robotic Applications" in health services extensively, the WHO, the European Union and scientists regarded the "Tele-medicine" reference as a sub-title.

Therefore, **eHealth** concept was used as the roof concept in the present study.

Applications such as Tele-Medicine and Mobile Health were considered under a sub-title. This application was presented in the relative scheme below:



Tele-medicine (Telemedicine): Transfer of medical information through information technologies in order to evaluate and develop health conditions of individuals medical (American Telemedicine Association, 2015).

Although it was harnessed for diagnosis and treatment operations conducted through information and communication tools in long-distance health services from the time when the Tele-medicine application was first introduced in 1960s until 2000s, it is used as a component of **eHealth** concept.

Tele-medicine practices could be classified into two different ways (Wootton et al. 2007**).**

1. Tele-medicine used by health workers for information share among themselves (consultancy, training, etc.).
2. Tele-medicine used between health employees and patients (examination through video-conference etc.).

Electronic Patient Records-EHK (Electronic Health Records):

This includes process of keeping patients' individual, medical and treatment history and all relevant information. The EHK covers previous diagnoses in the history, applied treatment plan, transfer operations, vaccination status, allergic reaction information, chronic diseases, x-ray images, lab results, insurance status and demographical characteristics. Thus, authorized divisions and persons (pharmacologists, physicians, insurance agent, manager, statisticians etc.) could access all information momentarily independent from location (www. healthit.gov).

Traditional Archive

Digital Archive

Robotic Practices in Health Services (Robotic Healthcare):

"Dr. Robot, Dr. Robot, Please report to the Surgery Room!"

Owing to advanced robotic technology and applications, some processes of health services could be implemented by robots. Especially elders and handicapped individuals who need home care services, it is possible to receive service from robots in lithotripter, hair transplantation, consultancy and nursing services today. For instance, robots with artificial intelligence, which provide home care service in Germany, are capable of establishing communication with patients; and of giving them bath and assisting them in bathroom needs. Even these robots could entertain elders and lonely individuals by dancing. On the other hand, robot nurses developed in Japan are capable of receiving blood samples from patients and giving them education. Robotic practices are available to meet doctors and other health professionals with technology to enhance their performances; put factors such as efficiency, productivity, speed and cost control into prominence so that more robust, dynamic, flexible and human-oriented health services could be provided.

mHealth (Mobile Health):

mHealth *(mHealth),* a component of **eHealth** concept, is abbreviation of *"Mobile Health"* word. According to the definition suggested by the WHO, **mHealth** is support to the medical and public health services by utilizing from smart phone, patient monitoring devices, digital devices (tablet etc.), other wireless tools (radio etc.) and mobile devices (www.who.int).

According to another definition, **mHealth** is the whole process including receiving, analyzing, processing and transferring of health information from medical devices through sensors and smart phones (**Adibi**, 2015). **mHealth** could be briefly defined as provision of health service, transmission of health-related information and establishing communication by harnessing smart phones, web pages, messaging services, tablets and wireless mobile devices**.**

Digital (Paperless) Hospitals:

Digital Hospital is to integrate long distance health professionals and departments with each other so as to provide high quality health service through combining clinical and administrative work flows with information and communication technologies, carrying hospital services beyond physical hospital walls (homes, emergency stations etc.). **Digital hospital** is the concept contributing into increasing personnel productivity, accelerate hospital operations, enhance process quality and ensuring patient safety by integrating advanced technologies and applications such as medical devices, smart information, facility control and automatic material handling systems, location-based services, sensors and digital communication tools with processes (Netherlands, 2009).

Paper-based practices are almost at the minimum level in a digital hospital. Patients' blood analysis results, x-ray, MR and tomography images are totally kept and maintained in a digital environment. Physicians at such hospitals could conveniently access health information of patients regardless of distance through cell phones, tablet and PCs. For example, a physician on duty at a digital hospital with the highest **"Stage 7"** level could regulate **serum flow rate** of an inpatient in any clinic by means of an application in his/her cell phone. According to specialists, digital hospital concept could bring **35% productivity** to the hospitals (http://saglikbilisimzirvesi.org).

Research

Tele Ophthalmology; **Example of the Best Practices: Netherlands**

Data Collection Process and Method of the Study: Study data was collected and compiled through an interview method. In this scope, as a result of the interview conducted with Reins Gort, Optometrist, who works in the **eEyes** health major and with PhD. Leonard Witkamp, CEO of the **KYSOS Company,** founder and operator of the Cutch Tele-medicine System in the period of June 5-12, 2016 by paying visit to Netherlands, one of the pioneer counties of the world in terms of **eHealth**; additionally, presentations in the eHealthWeek Summit organized in June 8-10, 2016 were considered.

Tele Ophthalmology Diseases System (Tele Ophthalmology):

Tele Ophthalmology Diseases is the application actively used within the body of Dutch **eHealth** system. This system was designed to connect "patient, family physician, optometrist, oculist and other relevant divisions" with each other and to allow them to operate in coordination.

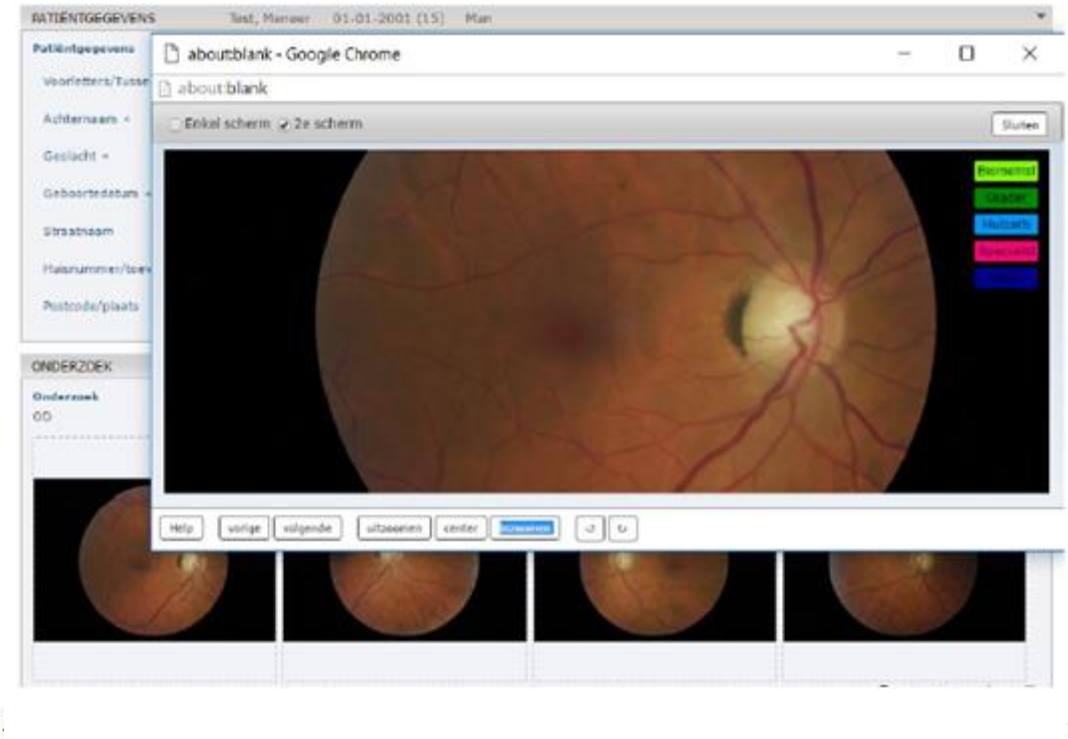
Unlike other countries, in diagnosis and treatment of eye diseases in Netherlands, **"Optometrists"** also play role. Although optometrists do not have authorization for surgical intervention to eye, they could determine problems of patients suffering from visual impairment and prescribe glasses or contact lenses; they are allowed to open optician store for sales of eye glasses and lenses independent from oculist (www.iskur.org).

As of 2016, the population of diabetic patient in Netherlands reached 1 million. 90% of these patients are classified in "Type-2" diabetic. All these diabetic patients need regular retina/eye examination to assess the potential harm of fluctuations in insulin level. Each patient diagnosed with diabetic need to attend ophthalmologic examination once a year even though they do not experience symptom or complaint (www.turkdiab.org).

When number of population requiring ophthalmologic examination is taken into consideration, work load and wait lists of oculist would reach such high levels. In order to handle this issue, the Dutch Ministry of Health introduced **eHealth** system in diagnosis and treatment of eye diseases.

In Netherlands, 90% of patients were appealing to second level hospital for their check-ups until 2010. Afterwards, majority of patients were able to visit first level hospitals through the Tele-medicine system. For example, whereas 23,634 patients from Rotterdam were appealed for check-up to the optometrists providing the first level health service in 2015, 78% were found normal, 5% were directed to family physicians. Only 17% of the one directed to the family physicians were referred to the second level hospitals. When these rates are considered, it was accomplished that 83% of ophthalmologic patients were resolved at the first tire. This system change has also reflected on financial statements; while insurance companies saved 8.54 Euro/Patient, patients saved 10.92 Euro individually. On the other hand, oculists gained opportunity to concentrate on more specific areas.

Operation of Tele Ophthalmologic Diseases System: The patient who wants eye examination through the Tele-medicine system appeals to the closest optometrist (either in private physician's office or sales store) for the examination. While an optometrist examines applicant patient, retina and other relevant images similar to the ones below are recorded into the **Tele-medicine** system. In this process, especially they try to make a diagnosis first; if this is not possible, try to connect oculists working at other hospitals across the country through the **Tele-medicine** system and request consulting or diagnosis. In the meantime, family physicians are notified about the decisions made about the patient through the Electronic Patient Record System.



Eye diseases diagnosed, checked-up and treated through the "Tele-Ophthalmology diseases system (Tele-medicine)" in Netherlands were summarized below:

Glaucoma: As a result of increasing internal pressure of the eye (clear substance), visual nerves are impaired, which results in visual impairments and even in blindness (www.dogaltedavi.net). In Netherlands, optometrists conducted 681 Glaucoma check-up in 2015, and 24% of them were considered to be checked-up by ophthalmology specialist; accordingly, it was concluded the others could be able to be diagnosed and treated at the first level.

Examination of fundus oculi: This operation includes examination of choroid coat which composed of retina, optical disc, macula and choroid veins, which could be viewed from through pupil through the funduscopy device (www.nedirnedemek.com).

Macular Degeneration: This is also known as age- related macular degeneration (www.dunyagoz.com).

Cataract: Loss of gloss of natural eye lens which allow visual sense (15).

Examination of Other Diseases: Redeye, Cornea Problems, etc.

Eye diseases mentioned above were the ones which could be examined actively through "**e-Eye / Tele-Ophthalmology System**" in Netherlands.

Owing to **eHealth** applications, especially dependency of diabetic patients to hospitals has reduced; even they could get their eyes examined when they are out for shopping just by stop by the closest optometrist.

According to the PhD. Witkamp, CEO of the **KYSOS** Company, if the same progress continues with the **eHealth** program in Netherlands, eye disease-related hospital visits will be reduced by **50%** in the future.

Status of e-Eye Diseases in Turkey: It was observed that there is no any clinical practice in Turkey similar to the ones in Netherlands. However, there are various services similar to the one shared below, offered by some hospitals in Turkey such as "online eye test, question/answer and e-appointment".

Results

As a Result of the Tele-Ophthalmology Diseases System Practiced in Netherlands;

- ✓ 83% of overall patients were checked-up, diagnosed and treated at the first level.
- ✓ Eye services offered at the first level were considered economically more advantaged in comparison with the second level. Due to Tele-Ophthalmology diseases system, insurance companies saved 8.54 Euro/patients; and patients saved 10.92 Euro.
- ✓ Long wait lines in Ophthalmology clinics were eliminated.
- ✓ Owing to the health services received from optometrists located in proximity of residences, these services could be accessed more conveniently.
- ✓ Owing to this system, symptoms and diagnosis could be finalized immediately.
- ✓ Through the Tele-medicine system, Family Physicians and Optometrist who remain in contact with Specialist Physicians have gained experience and expertise along the process.

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Lean Management Implementations for Healthcare

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Abstract

There are common problems in healthcare for all the world. Preventable mistakes, infections, raising health costs and changing customer's expectations are the prominent components of these problems. One in ten patient get harmed in the health care process. According to World Health Organization %20-40 of health spending is waste. It is called "non value added" in lean terminology. Central for Disease Control and Prevention (CDC) estimates that 722.000 people gets infections in acute care and 75.000 patients died due to healthcare associated infections in United States of America. These problems are effecting health outcomes adversely and increasing health costs. Lean is both a method and philosophy which focused on eliminating wastes and reducing costs. Many hospitals inspired from manufacturing industry to develop their process. They had many improvements in their process. Hospitals reduced their patient waiting times, defects, wastes related to inventory, staff movement and patient transportation by implementing; unwillingness of staff, the difficulty of doctors attending, inadequacy of top managers and so on. In this study the concept of lean management in term of healthcare and the examples of lean initiatives in healthcare will be discussed.

Keywords

Lean , Healthcare , Healthcare Costs , Lean Management in Health , Health Defects

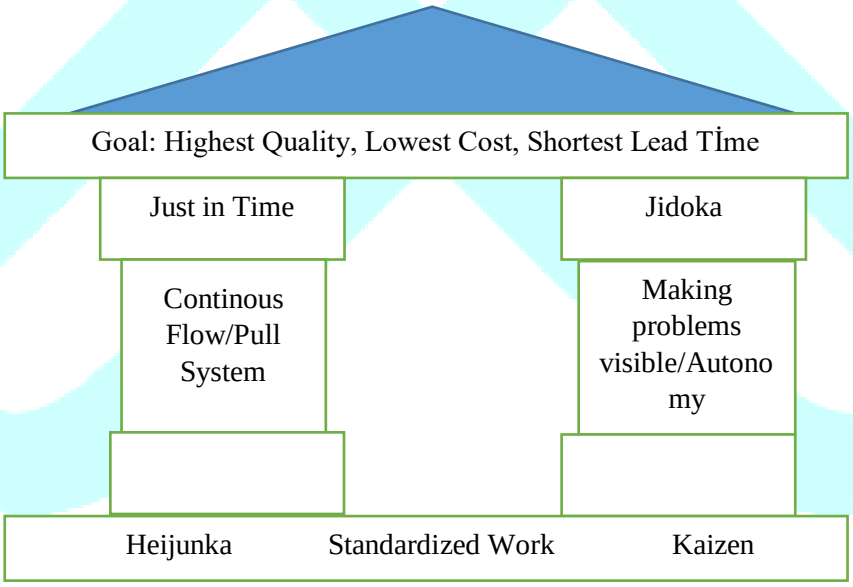
The Concept of Lean

Lean is a management system which known as "Toyota Production System" (TPC) by the industry. Because the concept of "Lean Management" are developed by manufacturing industry and accepted as management philosophy by Toyota Company. Toyota Company achieved to a huge success thanks to obtaining lean principles, so it can be said that TPC was the precursor of the lean method (Jackson, 1996). This philosophy is based on achieve more quality and less errors via improving production process not on mass inspection and punitive management. (Institute for Health Care Improvement, 2005) According to Taiichi Ohno who is one of the main character of lean in Toyota, describes what they did as *trying to eliminate wastes to make short the timeline of the process which starts from the order to receive payment*. (Graban, 2009)

After World War II Japan had some problems such as; higher raw material cost due to lack of natural resources, lower and rigid salaries that forced by Americans and lower demand on products because of the economic crisis after the war (Chiarini, 2012). Toyota in these restrictions, had developed a concept to be able to use scarce

resources more effectively to achieve wasteless production and better outcomes. This system was based on "Lean Production" instead of "Mass Production". Lean production is mainly different in aspects of quality and costs than mass production. According the mass production, "quality is equal to costs". In lean production, reducing costs by eliminating the wastes, the same production can be done by half cost of the mass production while maintaining the quality (Jackson, 1996; Chiarini, 2012). The Single Piece Flow (SPF) technique which based on Taylorism was started to implemented in Toyota, so wastes could be eliminated via flawless quality oriented operation (Rüttiman and Stöckli, 2016). SPF is a technique that gathering related components of a production together on a one production flow and allow productions process to be able to prevent lack of material and loss production. So, it can be said that main goals of TPS is wasteless and highest quality production, lowest cost and shortest lead time. The structure of TPS can be visualized by "Toyota Production System House" which includes philosophy and scientific techniques behind TPS. This model is on two columns which one is refer to "Just in Time" (JTI), another one is "Jidoka". Just in time aims to make organization able to work less inventory to avoid costs due to storage, carrying the inventory. Because JIT provides right items, in the right amount and at the right time in production process. "Kanban" and "pull system" is the main technique in the implementation of JTI. (Monden 1994.; Kootane, Babu et al., 2013) However, this method is not just about items and materials, also about people. Using human resources effectively is another concerning area of just in time. By the way Toyota was aware of about that to be successful every individual had to involved and committed just in time philosophy (Kootanaee, Babu et al., 2013) The second column, "Jidoka", refers to automation in Japanese. This philosophy aims to prevent errors in processes by using more intelligent machines and technology. Poka-Yoke is the main technique for Jidoka. And finally, all the system is based on "Kaizen" which refers to continuous improvement, "Heijunka" refers to scheduling and smoothing the production process, and standardized work (Rüttiman and Stöckli, 2016, Monden, 1994)

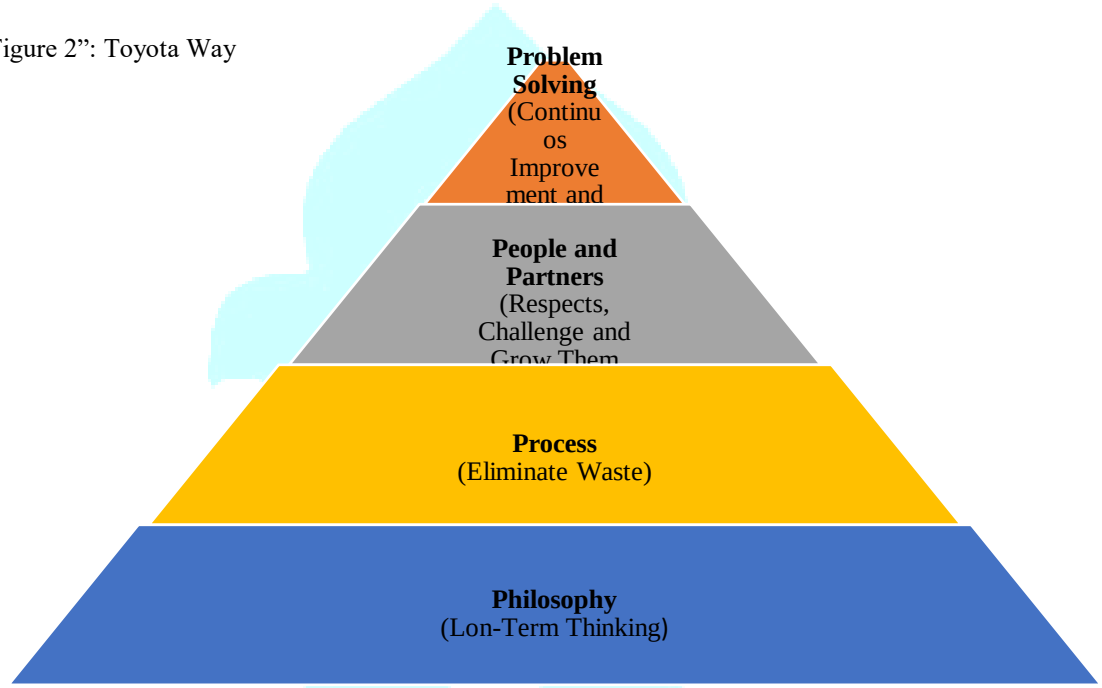
"*Figure 1": TPS House*



Source: Rüttiman and Stöckli, 2016; Art of Lean Inc (http://www.artoflean.com/files/Basic_TPS_Handbook_v1.pdf; Accessed Date.11.13.2016=

Toyota gained a big success by reducing costs and improving quality through JTI, single-piece/one-piece flow, Jidoka, Heijunka and Kaizen. But another determinant of Toyota's success was that the understanding and internalizing the philosophy behind lean by human resources. Organizational culture, leadership, supplier relations had big effect on shaping the TPS. Toyota Production System can be visualized by 4P called "Toyota Way"; problem solving, people and partners, process and philosophy. (Liker, 2004)

"Figure 2": Toyota Way



Source: Liker, 2004

Just in Time Method (JIT)

JIT philosophy is one of the fundamental column of TPS and lean management. It is strongly related to inventory and supply chain process in production. Thanks to reduced health costs and wasted by implementing JIT, it has gained more interest from many types of industries. Now most organizations use the Just in Time to be more competitive to deter the errors and wastes and to increase the productivity and efficiency (Kootanee, Babu, Talari, 2013). Just in Time was the main factors that make Japanese industries more successful and competitive. It was mainly about the eliminating waste as mentioned in Toyota Production System. Japanese culture and work ethic has shaped the JIT philosophy. Knowledge sharing, problems solving skills and supporting new ideas are the common components of work culture in Japanese industry (Lai and Cheng, 2009).

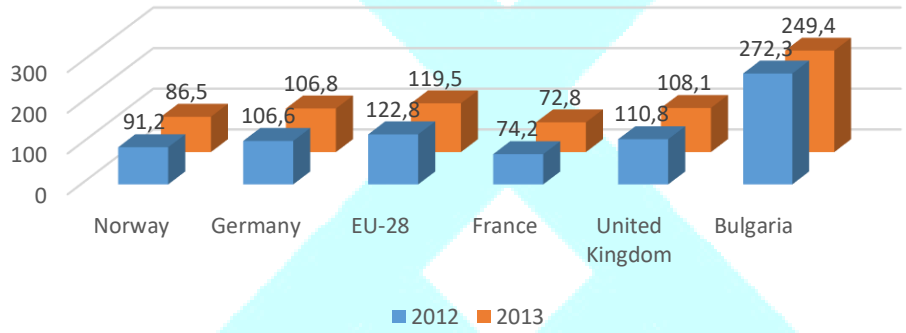
Just in Time system differs from mass production in terms of production process. The mass production process uses the "push system" while JIT using "pull system". In JIT, the production starts with the demand of costumers and it is customer oriented through the all system. So the customer's order is the trigger of the process. But in the mass production, there is no real relationship with the customers. JIT has many benefits for a production process. It drives inventory to zero, thus maintain affordable storage and logistic costs. It provides shorter delivery times by improving purchasing process. JIT let everyone who have role or roles in production process get the information related to their jobs that facilitate working and give the opportunity for improvement.

(https://catalogue.pearsoned.co.uk/assets/hip/gb/hip_gb_pearsonhighered/samplechapter/0133791858.pdf, Accessed Date: 22.11.2016; Kootanee, Babu, Talari, 2013)

The Need for Better Healthcare

Preventable injuries and diseases, health costs, infectious rates, changing costumers expectations and etc. are problems which common all over the world. According to World Health Organization (WHO), patient safety is a serious issue because one in 10 patient is harmed in hospital care in developed countries. Fourteen of every hundred patient affect by hospital infectious. And another side of these issues beyond patient safety is costs which occurs related to **inappropriate** treatment and caring procedures. WHO points out that 20-40% of health spending is wasted due to poor quality in healthcare. (10 Facts on Patient Safety; http://www.who.int/features/factfiles/patient_safety/en/ Accessed Date:11.11.2016) According to Central for Disease Control and Prevention (CDC) estimations, 722.000 people got infectious in acute care and 75.000 patients died during their hospitalizations due to healthcare associated infections in United States (U.S). And still many people die in U.S from medical errors (Makary and Daniel, 2016)

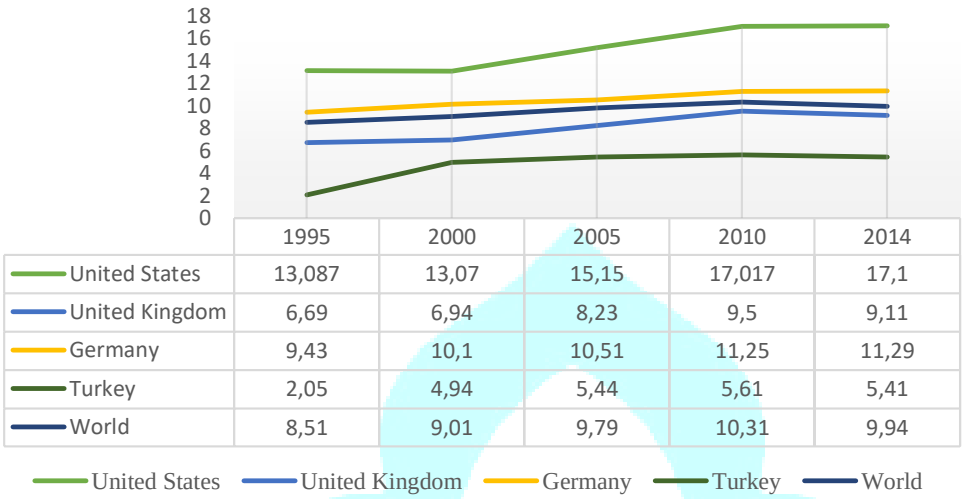
"Figure 3": Amenable Deaths in 100.000, Selected Countries.



Source: Eurostat; Accessed Date: 30.12.2016

At the same time, health costs are increasing constantly due to improved accessibility, using expensive technology and changing demographic profiles. Life expectancy now much higher than before. Although it is a positive indicator for health situation and welfare of a country, also it is the main cause for increasing health costs. The expenditure of health services are growing constantly for all countries as shown below **Graph 1**. Payment organizations (it can be public or private) are trying to pay less to hospitals because of the limited budget. Hospitals now are struggling to compensate their expenses via this relatively less reimbursements. Therewithal, ineffective use of health employees declines the hospitals success and quality of health services. Not organizing the workload of employees make them more stressful and more tend to make mistakes. And mistakes increase the costs. (Graban, 2009)

"Graph 1": Health Expenditure as Percantage of GDP, 1995-2014.



	1995	2000	2005	2010	2014
United States	13,087	13,07	15,15	17,017	17,1
United Kingdom	6,69	6,94	8,23	9,5	9,11
Germany	9,43	10,1	10,51	11,25	11,29
Turkey	2,05	4,94	5,44	5,61	5,41
World	8,51	9,01	9,79	10,31	9,94

Source: World Bank Statistics, Accessed Date: 30.12.2016

To maintain the desired and sufficient quality in health services, structure of the hospital and processes must be managed in an efficient way that will give the desired outcomes. Structure, processes and outcomes are the major indicators for quality. (Kapoor, 2011) In those circumstances which mentioned above, hospitals have to find new solutions that will eliminate errors and wastes. Because, sources are limited but people need still for quality services.

Implementing Lean Principles in Healthcare

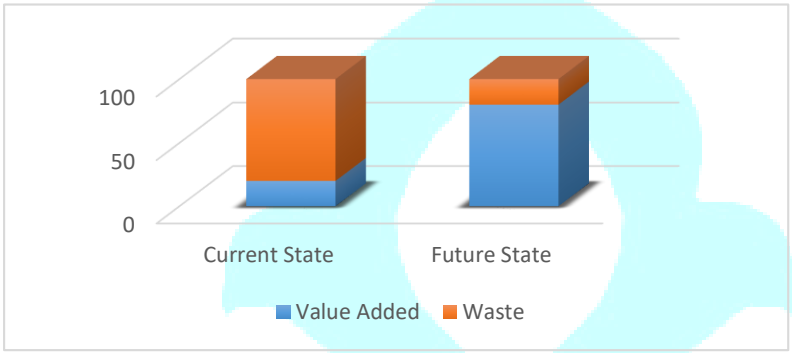
Although lean management were developed in manufacturing industry, its principles are suitable to implement in healthcare. As it is mentioned, the need for better healthcare are increasing but it is restricted by limited budgets and high costs. Therefore, lean principles can reduce costs and make processes able to run more easily.

In healthcare, systems are organized by functions. These functions are not hierarchical. Healthcare system organizations are "matrix organizations" which a little bit different from others. Matrix organizations can be explained as "project management". In health each patient is a project that different disciplines need to work on together. So, matrix organizations requires effective partnerships and team management to cope with complicated operations. It can make organizations more flexible, more responded to processes and enhance information through the organization (Allcorn, 1990) Matrix organizations include technical aspects, managerial aspect and project coordinator as a team. But one of the dominant characteristics of the matrix is "dual authority". Workers are responsible to their technical manager in technical procedures and also responsible to project management in completion of the process. Therefore, communication and partnership is very important in delivering healthcare (Liebler, McConnell, 2016) In case of not being effective in integrated working and mechanisms, ambiguity can be a big problem. Responsibilities and missions can be uncertain and finally a breakdown can be occurred (Spear, 2005).

To implement the lean management in an organization, firstly the wastes that occur in production process need to be determined. Wastes generally can emerge from "overproduction", "motion", "transportation", overprocessing", "defects", "waiting" and (Simon and Canacari, 2012). In healthcare, diagnostic tests and paper works are main cause of overproduction. Because of errors in processes, payments that doctors gain from procedures and patients

demands, a lot of tests are implementing unnecessarily. Defects have big proportion of wastes. Defects refers to errors and mistakes. It can be deathly for a patient or it can delay all the system by the time which required to fix it. If motion and transportation are not organized well, it can be tiring for staff when working. Additionally, inventory and underutilized staff are common problems for healthcare organizations. Inventory is the second major cost after the staff. The more stock an organization have, it means the more it will be costly. Managing storerooms, supply chain and logistic process is crucial for healthcare organizations (Manos et al, 2006).

"Figure 4": The Effect of Lean



The aim of lean is to change the current state of process to a better future state as shown up.

In healthcare, the priorities of patients are firstly getting well, secondly avoiding from pains, thirdly not waiting for long times. If these indicators are positive, in perception of patients they are value adding. As it can be seen, the first and second one is strongly related to medical side while the third is related to managerial side. Therefore, coherent and integrated view is crucial for healthcare (Lillrank and Peltokorpi, 2006). Meeting patient's desires must be a main duty of hospitals and other health organizations. To meet the needs in an efficient way, waste sources must be determined properly (Graban, 2009).

There are some waste examples in the below chart

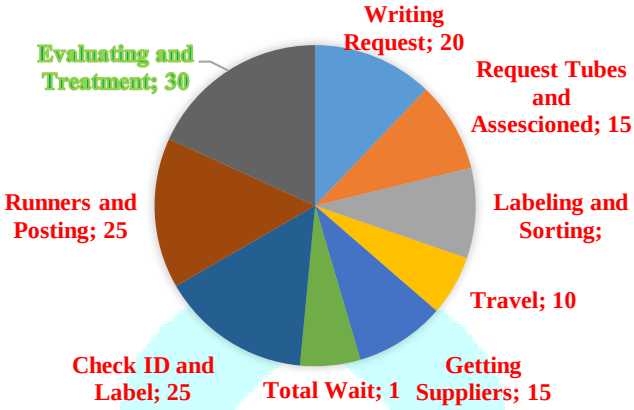
*"Chart 1": Wastes in Healthcare**

Errors	Wrong drug, wrong labeling tests tubes
Overproduction	Unnecessarily diagnostic tests, consultations
Waiting	Waiting patients for appointment, working staff because of the inequalities in working hours
Inventory	Out of date medicines, not stocked properly
Motion	Improper settlements, lack of materials
Over processing	Unnecessarily paper processes

*Based on: Graban, 2009; Joosten et al, 2009.

Actually, only the %20 percent of processes in a health care is value added. The remained %80, unfortunately is waste. For example, in a tests process in University of Iowa Hospital, 150 minutes of total process (180 minutes), not are not value added for patient and hospital. As it can be seen below, only the 30 minutes of evaluating and making treatment decision is value added for the entire process.

"*Figure 5": Value Added, Non-Value Added Processes*



Source: http://web.mit.edu/hmcmanus/Public/McManusTalkLeanHealthcare0312.pdf; Accessed Date: 30.12.2016

As mentioned, lean aims to reduce mistakes, accelerate respond time and raise quality. Many departments and hospitals gained many benefits from lean. For example, a hospital used lean principles in obstetrics and gynecology services, thanks to lean, they reduced patients time in clinics and raised their satisfaction scores. (Bush et al, 2007)

Chart 2 : Charleston Area Medical Centers Improvement

	2005	2006	Change
Obstetrical Visit	38	8	-%.78
Patient Time Spent in The Clinic (Hours)	3.1	1.4	-%54,8
Patient Satisfaction Score (10 point scale)	5.75	8.54	%49

Source: Bush et al, 20

Mainly there are two ways to eliminate wastes; Kanban and Kaizen. Kanban is related to objects and materials while kaizen is about the processes and procedures. In healthcare both model can be implemented and adopted to achieve better outcomes.

Kanban

Kanban is a Japanese word that means "card or sign". It is known as a concept of Just in Time production. Kanban method aims to provide ideal managing for inventories and reduce the costs related waste room. Kanban is a visual card which attached to each material and include information on purpose of using, lot sizes and related materials. It can be posted, painted or labeled on a suitable surface that make it able to serve its purposes. The Kanban system need to be connected with both side of supply chain; supplier and receiver. Also, it can be based on an electronic system. Electronic Kanban can be cheaper and effective more than traditional one. It can be integrated in the IT system of hospital; therefore, supplier can receive the Kanban signal and transport the needed materials without more procedures or orders (Stocfisch, 2011; Kaplan, 2008). But the main purpose of Kanban is doing this signal system without computer systems. The principle of Kanban can be explained as Taiichi Ohno mentioned; "parts would only be produced at each previous step to satisfy the immediate demand of the next manufacturing step. As each container carrying parts was used up at a manufacturing step, it was sent back to previous step and this became

the automatic signal for more parts" In hospitals, approximately, there are materials for two weeks on hand. Toyota has inventory for two hours. There is a huge difference between them, when it is compared (Chalice, 2007). Hospitals need more inventory because of emergency care and uncertainty of need for services. But, inventory is a cost area which need to be controlled. By using Kanban, hospitals can work with lower inventories.

There are three concept which related to Kanban; visual management, 5S and standardized work. 5S is a component of visual and standardized management and it is about making environment suitable for an effective working. Five S originally are made of Japanes words; "Seiri", "Seiton", "Seiso", Seiketsu", "Shitsuke". Seiri refers to cleaning making around propoer for organization. Seiton is about the store and material arranging and orderliness. Seiso means tidy and pick up. Seiketsu means standardization in processes. And Shitsuke refers to training, sustain and discipline (Protzman et al, 2010). Briefly, they can be expressed as; sort, set in order, shine, standardize, sustain. In healthcare 5S can be implemented in many areas. There are plenty of wastes in hospitals such as; unneeded inventory, unneeded transportation, complicated and large amount of materials, messy substances that unable workers to choose the right material and so on. Sorting, setting materials in order and tidying and cleaning up working environment will provide a more effective and flexible condition to work. Therefore, hospitals will be able to avoid defects resulted from messy and disorderliness (Jackson, 2009).

Kaizen

Kaizen is a model which based on "continuous improvement". To adopt Kaizen, an organization need to understand how it works and seek to find how to improve it. A methodology called "Deming Cycle" can be used to show improvement process; plan, do, check and act. This cycle refers to continuous improvement in terms of working processes and staffs' potential (Jackson, 2013). Kaizen aims to make improvement in processes by using "Kaizen Events". Kaizen Events refers to holding problems to find solving methods by a team. This team need to be consisted of a facilitator, head of related departments, and also frontline staff. Leaders are important for success in Kaizen events, because of their effect on procedures and staff. (Nelson, 2011).

For example, Dupont Hospital determined its Kaizen events as "decrease the waiting times our guests experience during the check-in and registration process and to improve the customer satisfaction scores in the outpatient test and treatment areas as identified through the Gallup surveys". Then, the team arrange the Kaizen event for a full week and starts with identifying wastes in the processes. The procedures continue with observing related procedures and collecting data. End of the event, team develops some recommendations according their observations and wastes that they detected. They evaluated the single line process which used before and the time which spent to all steps. Then, a multiline process was developed to reduce waiting times and eliminate the wastes (Aherne and Whelton, 2010).

Lean and Cost Reduction

Lean is different from traditional management philosophy. The traditional mentality assumes that if organization can produce bigger part of production then, it makes profit. Big lots production is important for profit. This methods bring more unnecessary inventory level and cause more waste in production. Lean is based on small projects. In lean management perspective, every process is a project in production line. Thereby, employees are the part of each project that related to their jobs. This perspective provides team working and clearer mission for every member. Therewithal, lean reduce inventory levels by "Just in Time". The pull system makes organizations able to control their stocks. It also makes organizations able to be customer oriented (Burney and Dawson, 2015).

Lean determines costs based on "value stream costing". It is related to "Value Stream Mapping" (VSA) which is a method of Lean management. VSA includes the all steps in production line. It shows the design of production, how to staff action between different steps, how to information disseminate and flows between participants. It determines the needed raw materials and ultimate outputs of production. It facilitates revealing the wastes related to each step (Asefeso, 2012). Lean costing differs from traditional costing in terms including all process in analysis. It aims to prevent over allocation resources in area which actually doesn't need to that amount of resources. To do this, all functions are examined separately in the costing process and the cost of each part of function is determined. Therefore, the steps which not adding value to the production process can be detected (Kennedy and Maskell, 2006).

After the analyze, implementing lean principles can have a significant effect on production cost, productivity and effectiveness. For example, lean principles can reduce costs by %25-55, inventory %60-90 and increase quality (avoiding defects) %50-90. The study which conducted in Virginia Mason Medical Center found out that implementing lean principles provide a reduction by %53 in inventory of health center. And also, people was walking less than before by %44 (Institute for Healthcare Improvement, 2005).

Examples of Lean Managements in Healthcare

Toyota Production System effected many hospitals and health care as well. The pressure of increasing costs and legal problem which occurs from medical errors, wrong procedures directed hospitals to seek new methods in management. There are a lot of examples on implementing new methods in healthcare.

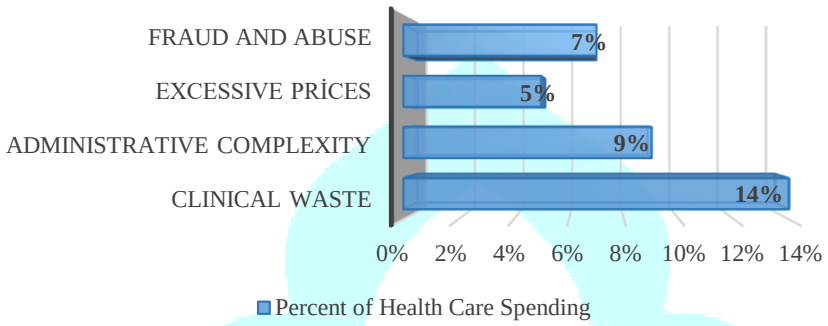
Canada is working on lean implementations intensively. Many hospitals are now using lean principles to achieve better outcomes using less resources. According to a study which conducted in 2009 and includes 5 hospitals, each organization has a champion to seed the idea of lean principles among organization. Except this, some of them chose to hire a professional team to implement lean principles. The purpose of hospitals was engage the all employees and managers into the lean processes. Thus, all hospitals in the study expressed that lean experience was a success, it reduced waiting times, decreased the length of stay and defects and provided improvement in infections. But study also revealed some challenges that hardened the establishment of the lean management principles. Firstly, staff had a fear about losing their jobs because of implementing lean. But lean doesn't cause the job losing, it just makes them easier and more valuable. Secondly, they found out that physicians were not willing to engage in lean management. The last one is the hardness of adopting lean principles for long term. To sustain lean management, it is necessary to internalize lean principles as an unending road (Fine and Golden, 2009).

In Canada, the province of Saskatchewan has started a lean initiative across the province. The Five Hills Health Region started to implement lean in 2006 to be focused on patients, ensure zero defect and provide quality providers. Thanks to lean management, they could reduce waiting times and save more money in the budget. In Ontario also many hospitals adopted lean principles and implemented it. They decreased the length of stay to 2.8 from 3.6 hours, and the patient satisfaction increased according to surveys. Other provinces also used lean. For example, Alberta Health Services tried a different method to make lean principles adopted by employees. They took out some of the terms and jargons of lean management to be understood easily. Because, when the terms and concept of lean used, they realized that many employees have arisen a number of concerns. Employees were

hesitating to adopt the principles because of the being suspicious about the new procedures. (http://healthydebate.ca/2014/09/topic/lean; Accessed Date: 18.12.2016).

In a study, the wastes in healthcare of U.S.A are summarized as below.

"Graph 2": Wastes in U.S.A Healthcare



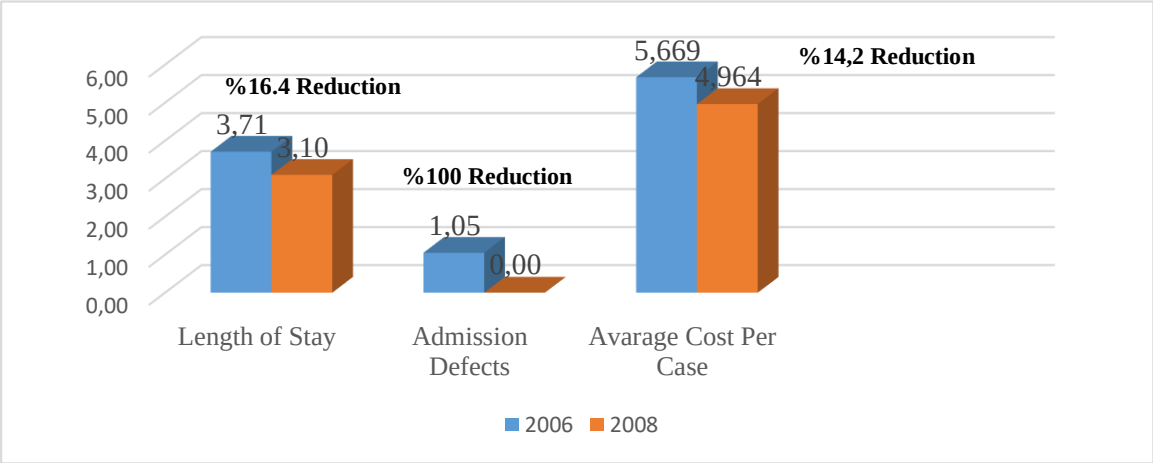
Source: Sahni et al., 2015

The study suggest that U.S. can reduce wastes in healthcare by implementing innovations to reduce the clinical waste and abuse, broad systems to alleviate managerial complexity. Value based payment is a system which can be implemented to make progress more efficient (Sahni et al, 2015). Especially Medicare use this application to be more efficient and productive. Medicare is applying a value modifier to determine how much physicians will get paid. The modifier is named as "Physician Fee Schedule". It works based on a Quality Reporting System. The system evaluates a physician's performance according to quality of care and how much it costs. With the Affordable Care Act, primary care physicians (PCPs) now are the center of health services and payment method is now based on created value not volume. PCPs are working based on a contract. If the desired outcome and quality level of services are not provided, contract may not be formed again (Oracle Insurance, 2014; Centers for Medicare and Medicaid Services: Accessed Date: 19.12.2016). Another method in U.S.A. is implementing comprehensive demand side reforms. In this structure, consumers are more responsible for their health plans. This system encourages customers (patients) to be more sensitive to prices. Thus, people can make choices on their health plans and hospitals and other health institutions can save more money. Because people will be more sensitive to consuming health services thanks to prices (Sahni et al, 2015).

Virginia Mason Medical Center is known with the implementation of lean principles effectively in U.S.A. As we mentioned before, lean principle is known as Toyota Production System. Virginia Mason Medical Center developed a different organizational and managerial structure which made it known as Virginia Mason Production System (VMPS). VMPS uses the methods of lean managements such as; Value- Stream Mapping, 5S, Kaizen and also some methods like 3P (production, preparation, process), Patient Safety Alert System which is used for detecting root causes of defects and mistakes then develop strategies to eliminate it. They created an infrastructure that includes Kaizen Promotion Offices (KPOs), two managers for over sawing the training and education of employees. These authorities shaped the lean management steps. They faced some hesitations and negative approaches from employees. But they gained many benefits by using lean such as; cutting inventory in half, reducing travel distance about %38 and gaining productivity by %44. (Bohmer, 2010).

Thedacare is a community health system which consist of seven hospitals in U.S. in Wisconsin. By implementing lean, Thedacare had many improvements in their processes as shown below Graph 3.

Graph 3: Thedacare Improvements



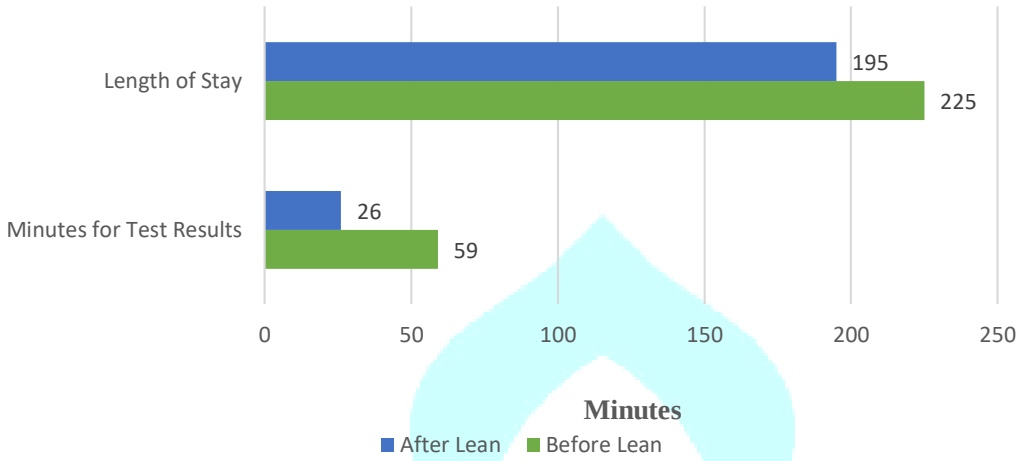
Source: Grout ve Toussaint, 2010

In India, a hospital decided to implement lean techniques. According to a study which used semi structured interviews with doctors, nurses, support staff and patients, they firstly determined their causes of wastes in the processes. For instance, they used Integrated Pharmaceutical Information System (IHIS) to manage pharmacies easily. Because they had high costs related to storing and over consuming of drugs. This system enable hospital to manage and reduce consuming and reduce inventory costs. The system included a electronic data sharing platform, thus the relation between supplier and hospital became more clear. And managers could have right information about consumption of each department. They also established a new working system that staff worked on day and night shifts. They tried to provide workload balance between staff to make them able to more efficient (Narayanamurthy and Gurumurthy, 2014).

Odense University Hospital (OUH) in Denmark initiated lean implementation in their health services in 2006. They had a strong economic pressure and restriction, unsatisfied patient and staff and also increasing patient's expectations before the implementation. OUH decided to detect wastes and make their services lean to cope with these challenges. They firstly organized a Kaizen group and worked for a whole week. They made many suggestions and had discussions on them. They focused on process improvement and tried to reduce patient transfers. All wastes were detected using value stream mapping and for each problem some suggestions were developed by the team. The main aim was reducing waiting times for patients and walking distances for staff. They used Gemba mapping to make the distances visual. And they tried to find the shortest way for transportation and some related works. Gemba means the real place in where works are done. Before the Gemba mapping, the responsible team need to walk through the process from the beginning to the end. The same problems we mentioned before in the other studies occurred in OUH as well. Main problem was to convince the staff adopting lean principles (Dammand et al, 2014; Green and Valentini, 2015).

Le Bonheur implemented lean principles in emergency processes. Results were satisfied as shown below. They saved 248.000 $ in emergency department by alleviating clutters, reducing waiting and inventory level. The patient number per hour is increased to 3,2 from 1,8 (https://www.memphisdailynews.com/editorial/Article.aspx?id=34825).

"Graph 4": Gaines of Le Bonheur



Source: https://www.memphisdailynews.com/editorial/Article.aspx?id=34825

Conclusion

All countries are searching for new methods to make their health system sustainable. They develop new payment methods, new insurance packages, new organizational structures and so on. Health services are expensive and it is called as "catastrophic". To ensure the desired quality and quantity of services, all organizations need to be aware of costs and benefits of services. According to "To Err is Human" study, 95.000 people are injured by medical errors and about 65.000- 100.000 are dying because of low quality services and inappropriate care. Hospitals can eliminate this adverse and negative conditions adopting lean principles. After the its development in manufacturing industry, lean has gained a big interest in healthcare. Managers realized that they can reduce their costs and make their process more efficient with small changes. Lean provides cheap solutions for organizations to be sustainable and ensure right quality. Many hospitals gained huge benefits with lean such as; shorter waiting times, less errors, happier human resources, less inventory level and so on.

Implementing lean principles depends on the appropriateness of human resources. If human resources are not at enough quality and not have the work ethics, it cannot be successful. The main purpose of lean is to make improvements in processes using cheaper and manual steps. Technology can help the lean processes, but if human resources not effective, the technological investment can be expensive for organizations. For example, Kanban is a much cheaper method which can control the inventory level and the availability of materials. If the responsible employee can use Kanban appropriately, costs will start to reduce immediately.

There are some factors that make organizations unable to implement lean. The main factor is staff. They may fear about their job with the lean. But lean is not about eliminating jobs and firing staff. It is about eliminating waste. If lean principles can be implemented, human resources can work under a more flexible work conditions. The workload of staff can be balanced and job definition can be clearer. And lean management will bring a philosophy about team working. Lean requires people working as a team, we mentioned before at Kaizen events

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Violence in Healthcare: Situation in Greece and Turkey

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Abstract

Violence in healthcare is a phenomenon which has attracted attention of academicians and other related people for a long time. It means all the individual or collective movements that cause people to suffer physical and mental harm. It may happen between family members, peers, colleagues etc. and it can cause by subordinates and executives. There are many type of violence such as verbal, physical and sexual violence. All of violence types may occur in healthcare institutions and there are a lot of studies which indicate that. This study aims to provide information about violence concept, to reveal the situation of violence in Turkey and Greece and to propose solutions for violence incidents.

Keywords:

Violence, Healthcare, Greece, Turkey

Introduction

Violence is a problem that may be encountered in all areas of life, in every single country, against every occupational group and gender. Mostly it is applied as verbal and psychological but there are many different types of violence including physical and sexual violence. Because of the economic problems and international crisis environment, Turkey and Greece are increasingly facing violence day by day. Violence incidents are present as an important problem in the health field as well as in all other sectors and almost every health workers experience violence at least one time in their working life. It has been shown in a study that healthcare workers are at higher risk than other workers 16 times (Elliot, 1997). Therefore, the aim of this study is to draw attention to violence against health workers in Greece and Turkey by providing statistical information and to offer possible solutions for workplace violence in health sector.

Definitions

World Health Organization defines violence as **"***The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation*" (WHO, 2014). Violence is defined as "*using brute force to someone who has an opposing view*" by Turkish Language Society (http://www.tdk.gov.tr). In the terminology of law; violence is defined as "*brute force, applying excessive force; coercion*". Actually, this definition does not adequately cover psychological violence (Yılmaz, 2005).

In addition to these general definitions violence can be categorized as physical violence and psychological violence. Physical violence encloses sexual violence. Some academics consider that sexual violence as a separate category (Baydur and Ertem, 2006). Psychological violence encloses, verbal violence, threatening by someone, verbal aggression and inducing fear. Therefore, psychological violence expresses an extensive and abstract effect.

Turkish criminal law doesn't define violence. Academics are trying to define and judicial decisions determine a framework to the violence. There are some specific regulations in Turkish law like violence in sports and domestic violence. The Law on the Family Protection and Prevention Violence Against Women includes a definition of violence. According to this definition, "*Physical, sexual, psychological, verbal or economic any attitude and behavior which occurs at social, public or private places, that resulting in physical, sexual, psychological or economic harm or suffering or probable harm or suffering in an individual, including threats to it and arbitrary suppression of oppression or freedom*" express violence (In the same law, there is another definition which defines the violence against women. The general definition of violence is specified in the text.) It is deduced from the definition in the Law on the Family Protection and Prevention Violence Against Women that, in Turkish law there is a general definition of violence which is so comprehensive. The law-maker doesn't restrict the attitudes or behavior and also the physical, sexual, psychological, verbal or economic violence has legal grounds.

Violence at health institution is expressed as "*the case arising from patient, relatives of the patient, or any other individual risk for the health worker by threatening behavior, verbal threat, economic abuse and sexual assault*" (İlhan et al. 2013).

Violence is applied by different individuals with different motivations. But generally, psychological violence is applied just like physical violence to put pressure on someone and control someone (Defining Violence and Abuse, 2015). Violence in health can occur in the form of physical violence applied to health workers as well as psychological violence (http://www.sbn.gov.tr/icerik.aspx?id=115)

The psychological violence experienced by health workers is found to intersect with mobbing. As a new developing concept in Turkish law, mobbing expresses psychological violence in the workplace. Mobbing includes behaviors such as violence, humiliation and all kinds of ill-treatment, systematically applied by employers to employees or employees to employees. As it can be understood from this definition mobbing occurs when psychological violence occurs systematically among colleagues (Temizel, 2013).

Violence in healthcare

Approximately all healthcare workers have experienced at least one form of workplace violence by patients or patients' relatives. There are many type of violence such as verbal violence, physical violence, psychological violence and sexual violence. According to many studies the most common type of violence is verbal violence in healthcare institutions. Besides, there is a different violence type in healthcare institutions performed by peers and colleagues. In this paper, it will be discussed especially violence caused by patients and their relatives.

Aydın et al. (2008) stated that health care workers exposed to violence in the daily working hours especially during the treatment process and at the intervention areas (Aydın, 2008). In another study conducted in an emergency service of a state hospital in Turkey, 100% of the participants stated that they subjected to verbal violence at least once in every shift (Gülalp et al. 2009).

According to a study conducted in Greece, there are serious violence events against healthcare staff by patients' visitors. 250 healthcare staff were included in the study and almost all of participants had experienced some types of violence. The most reported violence type was verbal violence followed by psychological violence. In the morning shift, 80.8 % of participants experienced verbal violence, in the evening shift, 76.8 % of participants experienced verbal violence and in the night shift, 45.6% of participants experienced verbal violence. When it comes to the psychological violence, 76.8% of participants experienced it in the morning shift, 73.6 % in the evening shift and 40.8% in the night shift. In the study, perceived causes of violence is also examined. According to perception of healthcare staff, primary cause of violence is violation of visiting hours at the rate of 88.8%, long waiting periods (86.4%), psychological problems (83.2%) and smoking prohibition (82.4%) (Koukia et al. 2013). In another study conducted in a Greek tertiary hospital with 175 participants, 83.4% of participants had experienced workplace violence but nearly half of them had not reported these incidents to the administration. Among violence types, the most reported was verbal violence (98.6%). 72.6% of participants reported that they have been suffered from psychological consequences of violence incidents for a long time (Mantzouranis et al. 2015). In another study it is determined that there is a relationship between post-traumatic stress disorder and workplace violence although it is not vast and it is responsible for job turnover, negative impact on the nurse-patient relationship, and loss of money by the health institutions (Richter and Berger, 2006). In the study conducted by Eleftheria et al (2016), it was examined that workplace violence situation in three different healthcare center settings. According to this study, 76% of participants had experienced workplace violence. Whereas female and less experienced employees were the most suffered from violence incidents, male and more experienced employees are less affected. A high proportion of the participants (65%) reported that they feel in danger in their workplace. The main reported cause of violence was long waiting times at the rate of 99% (Fafliora et al. 2016).

According to Stathopoulou (2007), main causes of workplace violence in healthcare are as follows: increasing stress and impatience, long waiting hours, unrestricted visitor access, overcrowding, inappropriate staff attitude, suspicion that priority order was violated. Whatever the cause of violence event, it causes decrease in self-esteem, loss of job satisfaction, trauma, increased litigation costs and staff absenteeism. Worse, it can cause deaths and disabilities as well (Stathopoulou, 2007). For example, Dr. Ersin Arslan was killed by a 17 years old patients' relative in 2012 in Turkey (Smith, 2015).

In their study İlhan et al (2013) investigated perceived workplace violence from the view point of society. On the voluntary basis 1179 participants who applied to family healthcare centers and a public educational hospital were included in the study. 32.7% of the participants reported that they witnessed verbal violence and 19.5% witnessed physical violence. What is the most remarkable is that; 20.2% of respondents thought in some cases healthcare staffs deserve violence and 22.9% of them thought that sometimes it is a necessity. These rates indicate that the violence is a serious problem and there are some people who may participated in these type of events (İlhan et al. 2013).

Another study which was conducted in Turkey indicates that violence is most often experienced by general practitioners and nurses, employees in Emergency Services are most often exposed to violence and verbal violence is the widest violence type (72.4%). Another point which is mentioned in the study is that the employee is often unable to get help during violence. In a study conducted in Turkey in an emergency service in the province of Adana, participants stated that they were subjected to verbal abuse at least once in each shift (http://www.sbn.gov.tr/icerik.aspx?id=115). In another study which was conducted with 226 nurses, it was found

that most of the nurses who participated in the study (71.7%) stated that they were sexually abused by their patients (Erdemir et al. 2011).

It is reported in a study which was conducted by Adaş et al. (2008) that the main cause of increase in workplace violence is economic (44.5%) and second cited cause is educational (32.1%). Besides, 58% of participants exposed to both verbal and physical violence. When it comes to opinions of people accused of violence, the main reason for acting violence is being neglected during treatment and being dissatisfied with treatment. Following reasons cited by criminals as follows; anti-physician publications in the media, unnecessary requests, drug and alcohol use and health policies. In the same study it is reported that there is statically significant difference between high educated and low educated people in terms of violence (Adaş et al. 2008).

Causes of violence in healthcare against healthcare workers are generally as follows; lack of education, intolerance and impatience, attitudes of healthcare workers towards patients and patients' relatives, dissatisfaction about treatment process, attitudes of politicians and health managers about the problem, alcohol and drug use, psychiatric problems, provocative publications in the media, blaming health care workers for negative results (Turkan, 2013).

Workplace violence can lead to many physical and psychological disorders. Those who experience this kind of incidents can suffer from post-traumatic stress disorder, anxiety, depression, decrease in job motivation and poor self-esteem mentally. They can also suffer from injuries and it can lead to deaths as well (Wieclaw, 2006; Gillespie et al, 2009; Camerino et al, 2008; AbuAlRub, 2007; Martino, 2003).

Conclusion and Recommendations

There are serious violence problems in both countries in terms of violence directed at the health workers. Employees in health institutions are at a higher risk than workers in other institutions. Studies which are conducted in this field are also indicates this situation. In these studies, it is disclosed that both patients and patients' relatives are responsible for these kind of violence incidents. These events occur especially in emergency services. Generally, less experienced workers and female workers are victims of violence events.

Employees who are subjected to violence do not feel safe and they cannot work efficiently. So, there are secondary negative effects of violence events in health sector like other sectors. When someone is injured by violence events or someone's heart breaks, these people cannot work properly. They always feel anxious about being subjected to violence. So, those who demand health services cannot get efficient healthcare.

There is not any specific legal regulation for violence in healthcare institutions in both countries. There are general legal regulations about violence incidents, so there should be a specific legal regulation for violence in healthcare institutions to provide a safe working environment for health workers. "Regulation on Ensuring the Safety of Patients and Employees" includes articles about worker safety (for example second section, seventh article). But it makes only the employer responsible for these practices. According to this regulation, employers should take precautions and make related regulations to prevent physical attacks against employees in workplace. Even if employer take these precautions and make these regulations, violence incidents may happen. Also, this regulation doesn't cover primary health care institutions (first section, second article). Therefore, there must be laws containing deterrent punishments in violence cases. There is a circular which was posted in 2012 by Security General Directorate named "Investigation of Crimes Committed Against Health Worker". In this circular it is declared that in case of insult, threats or injuries to health workers, an investigation will be initiated with the

directives of the public prosecutor without the need for a complaint by the petitor. This circular may be a good product of a good mind, but those who involved in violence incidences will be punished according to general criminal laws.

In response of increasing violence incidents in sports, "Law on Preventing Intricacy and Violence in Sports" was enacted in Turkey and there have been significant developments since the law was enacted. Similarly, a law may be drawn up to prevent violence in healthcare sector as well.

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A study on Examining Self-Care Agency and Life Goals of the Students of Health Management

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The study has been carried out to be able to learn self-care agencies and life goals of the students of health management. The study has been carried out on the students of Health Management Department of Faculty of Health Sciences, Seljuk University. The universe of the study consists of 400 people. The sample consists of 250 people. In the study, self-care agency scale and life goals scale were used. Self-care agency scale was developed by Kaerneyand Fleischer in 1979 and adapted by Nahcivan in 1993 to Turkish language, and it consists of 35 items Life goals scale was developed by Tahsin (2009) and consists of 47 items. Scale consists of 9 factors, which include personal relationship, contribution to society, physical health, personal development, meaningful life, contribution to family, becoming famous, image, and financial success. While the findings obtained in the study are evaluated, utilizing SPSS (Statistical PackageforSocialSciences) for Windows 20.0,for descriptive statistical methods (frequency, percentage, mean, standard deviation) and analyzes, independent sample t-test, variance, and correlation test were used. In order to be able to test the validity of scale, the validity and reliability test was carried out.

This study was earlier carried out on delivery nurses. That it was not carried out on students of health management, a part of health workers, emphasizes the importance of this study. That the students of health management are in faculty of health science is considered to affect the self-care agencies and life goals of the students. In this scale, study results will be scrutinized.

Keywords:

Health management, University, Self-care agency, Life goals

Human beings, beginning from primitive man, survived for a certain aim and have been surviving. For humans to survive, life goals keep and important place. Life goals are not inherently obtained. It is case acquired together with the environment and sociocultural structure human lives in. It is a term used for the hidden search individual fosters based on his/her thoughts about what he/she can reach in the life and how he/she can beat his/her real and imaginary deficiencies(Budak, 2003). Life goals is defined as "the desired conditions individuals try to obtain and sustain through the cognitive and behavioral strategies (Emmons,1999).Kasserand Ryan (2001) divided life goals into two as internal and external. Internal goals include personal development, emotional closeness, and service for society and external goals, the financial success, physical attractiveness, fame, and popularity. Internal goals are the ones, currently present in within humans i.e. in their genes. External goals are mostly related to the goals of human to satisfy with himself/ herself and receive positive feedback from his/her circle. The concept of self-care was developed by Dorothea E. Orem in 1950s. While that individuals do their parts to personally protect their lives, health, and well-beings are defined as self-care (Fawcett,2001), self-care agency is the abilities to arrange self-care behaviors toward maintaining and raising health; engage, understand, and comprehend in specific issues related to self-care; use information; and he success to apply the decision made (Nahçivan,1993).In short , self-care is that individuals do their parts for personally protecting their lives, health, and well- beings (Akdumanetal. , 2004). In self- care that is necessary to sustain and raise the life and health, target is to enable individual to undertake all responsibilities regarding his/her own health (Orem, 2006). Human is a physiological, psychological, and social existence and self-care of individual changes showing a development from childhood to advanced age. This change depends on the factors such as the health condition of individual, his/her life experiences, culture of society he/she lives in, and being able to use the facilities in daily life (Kara,2001).Self- care is a behavior, learnt via interaction, communication, and culture and develops in time (Orem,1991).The concepts of life goals, self-care, and self-care agency form a sensitivity for especially university students. This study, earlier carried out on the students of nursing department, was not administered to the students of health management. The conclusion of this study, administered to the students studying in the department of health management will be evaluated.

Material and Method

The study was carried out on the students of Health Management of Faculty of Health Science, Seljuk University. The universe of the study consists of 400 people. The sample consists of 250 people. In the study, self-care agency scale and life goals scale were used. Self-care agency scale was developed by Kaerney and Fleischer in 1979 and adapted by Nahcivan in 1993 to Turkish language, and it consists of 35 items Life goals scale was developed by Tahsin (2009) and consist of 47 items. Scale consists of 9 factors, which include personal relationship, contribution to society, physical health, personal development, meaningful life, contribution to family, becoming famous, image, and financial success. While the findings obtained in the study are evaluated, utilizing SPSS (Statistical Package for Social Sciences) for Windows 20.0, for descriptive statistical methods (frequency, percentage, mean, standard deviation) and analyzes, independent sample t-test, variance, and correlation test were used. In order to be able to test the validity of scale, reliability test was carried out. As a result of reliability analysis of self-care

agency scale, the value of Cronbach Alpha was found as 0.949. As a result of reliability analysis of life goals scale the value of Cronbach Alpha was found as 0.949.

Findings and Analysis of the Study

The demographical data belonging to the study and frequency analyses belonging to the survey used in the study are presented as follows.

Table 1. Demographical Findings Belonging to the Study

Gender	**n**	**%**	**Educational Status of Father**	**n**	**%**
Male	86	34,4	Primary School	102	40,8
Female	164	65,6	Secondary School	56	22,4
Form	**n**	**%**	High School	68	27,2
Freshmen	100	40	University	24	9,6
Sophomore	68	27,2	**Is your mother working?**	**n**	**%**
Junior	82	32,8	Yes	33	13,2
Educational Status of Mother	**n**	**%**	Non	217	86,8
Primary School	132	52,8	**At the moment, where have you stayed?**	**n**	**%**
Secondary School	45	18	In student dormitory	150	60
High School	29	11,6	In house with friends	54	21,6
University	44	17,6	Together with family	46	18,4
Total	250	100	Total	250	100

When we regard to Table 1, 34.4% of study participants are males and 65.6 % of them are female. 40% of the students are freshmen; 27.2%, sophomores; and 32.8%, juniors. According to the educational status of mothers participating in the study, it was identified that 52.8 % of them were at the level of primary school; 18.0%, secondary school; 11.6%, high school; and 17.6%, university. According to the educational status of fathers participating in the study, it was identified that 40.8 % of them were at the level of primary school; 22.4%, secondary school; 27.2%, high school; and 9..6%, university. It was identified that the mothers of 86.8% of those participating in the study were not employed. 60^% of those

participating in the study stay in dormitory; 21.6% in house with their friends; and 18.4% together with their families.

Table 2. Descriptive statistics examining the prioritized cases in life goals of the students participating in the study

	N	Range	Min	Max	Mean	SD
Contribution to the family	250	3,67	3,33	7,00	6,4027	,78946
Personal development	250	3,33	3,67	7,00	6,1533	,80233
Physical health	250	5,00	2,00	7,00	5,9660	,97218
Personal relationship	250	4,00	3,00	7,00	5,9293	,84675
Meaningful life	250	6,00	1,00	7,00	5,6600	1,07066
Contribution to society	250	4,57	2,43	7,00	5,6269	1,00655
Financial success	250	4,50	2,50	7,00	5,4860	1,05405
Image	250	6,00	1,00	7,00	5,0944	1,20069
Becoming famous	250	9,00	1,00	10,00	4,6980	1,39915

In Table 2, when we regard to the priorities of life goals of the students participating in the study, these priorities are put in order as contribution to the family (x = 6.40), personal development (x=6.15), physical health(x = 5.96), personal relationship (x = 5.92), meaningful life (x = 5.66), contribution to society (x= 5.62), financial success (x = 5.48), image (x = 5.09), and becoming famous (x = 4.69)

Table 3. Correlation analysis examining the relationship between sub dimensions of life goals and self-care agency of the students participating in the study

		1	2	3	4	5	6	7	8	9	10	11	12	13
1-life goals, mean														
2-personal relationship	r	,668*												
	p	,000												

3-contribution to the society	r	,614**	,659**									
	p	,000	,000									
4-physical health	r	,704**	,571**	,497**								
	p	,000	,000	,000								
5-personal development	r	,800**	,692**	,674**	,723**							
	p	,000	,000	,000	,000							
6-contribution to the family	r	,659**	,620**	,634**	,557**	,724**						
	p	,000	,000	,000	,000	,000						
7-Meninful life	r	,543**	,519**	,594**	,432**	,540**	,469**					
	p	,000	,000	,000	,000	,000	,000					
9-fianacial success	r	,897**	,380**	,278**	,554**	,551**	,382**	,236**	,427**			
	p	,000	,000	,000	,000	,000	,000	,000	,000			
10-İmage	r	,608**	,405**	,356**	,524**	,461**	,282**	,240**	,414**	,589**		
	p	,000	,000	,000	,000	,000	,000	,000	,000	,000		
11-becoming famous	r	,572**	,430**	,450**	,386**	,484**	,319**	,348**	,489**	,483**	,572**	
	p	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	
13-self-care agency, mean	r	,369**	,414**	,394**	,390**	,412**	,324**	,328**	,451**	,216**	,301**	,267**	,315**
	p	,000	,000	,000	,000	,000	,000	,000	,000	,001	,000	,000	,000

When we look at to Table 3, it is seen that the relationship between life goals and its sub-dimensions is examined. It was identified that there was a very high correlation between life goals and personal relationship (r= 668), contribution to society (r = 614), physical health (r = 704), personal development (r = 800), contribution to family (r = 659), physical success (r =897), and image (r = 608) and that there was a moderate correlation between life goals and meaningful life (r = 543), and becoming famous (r = 572)

In addition, it was identified that there was a significant relationship between self-care agency of the students participating in the study between life goals.

Table 4. t-test in independent groups , carried out to examine the difference between the gender of the students and their personal developments

	Gender	**N**	**Mean**	**t**	**P**
Personal Development	Male	86	5,96	-2,691	0,008
	Female	164	6,25		

When we regard to Table 4, it was identified that there was a significant difference between the gender of the students participating in the study and their personal developments. It was identified that the mean value of male students are lower compared to the female students

Table 5. Analysis of one -way analysis, carried out to examine the difference between the grades of the students participating in the study and financial success

	Grade	**N**	**Mean**	**F**	**P**
Financial Success	Freshman	100	5,33	5,52	0,005
	Sophomore	68	5,84		
	Junior	82	5,37		

When we look at Table 5, it was identified that there was a significant difference between the grades of the students participating in the study and financial success. In order to examine the difference between variables, Scheffe test was carried out and there was a difference between freshmen and sophomores and juniors .

Table 6. Analysis of one -way variance, carried out to examine the difference between the mother educational status of the students participating in the study and their contribution to the family

	Grade	N	Mean	F	P
Contribution to family	Illiterate	34	6,63		
	Primary school	132	6,53	2,513	0,042
	Secondary school	45	6,26		
	High school	29	6,1		
	University	10	6,4		

When we look at Table 5, it was identified that there was a significant difference between the mean values of the mother educational status of the studentsparticipating in the study, and their contributions to the family. In order to examine the difference between variables, For testing between which variables there was difference, Scheffe test was carried out and it was identified that there was a difference between all groups .

Discussion and Conclusion

In this study, carried out to be able to learn self-care agencies and life goals of the students of health management, the results regarding self-care agencies and life goals were examined in two parts. In the first part, the results of demographic data belonging to the participants and descriptive statistics were given. In the second part, the analyses belonging to the scales are mentioned about.

A large part of participating in the study consists of female students. (65.6%). Large majority consists of freshmen (40%). A large part of mothers of the participants consist of those graduated from primary school (52.8%). The father of a large majority of the students graduated from primary school (40.8%). The mothers of a large majority of the students participating in the study are not employed. (86.8%). A large part of the students stay in dormitory (60%). The prioritized criterion of students participating in the study in life goals is contribution to the family. The female students stands out personal development as life goal compared to the male students. It was understood that becoming famous and meaningful life, among the sub dimensions the students participating in the study, were not among the priorities of the dimensions. A large part of freshmen, sophomores, and juniors gives importance to the physical success.

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Evaluation of Shared Leadership Perception at Primary Healthcare Institutions in Edirne Province

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Throughout the history of leadership studies, many definitions have been made by researchers. Every single researcher has his/her unique point of view about leadership concept. As leadership studies become more interested, studies which have been done in this area have also begun to differentiate. Modern leadership approaches now replace classical approaches. While leadership approaches change, leadership typologies are also changing. One of the new leadership styles is shared leadership. This study aims to determine the perception of shared leadership among primary care health service providers. The universe of the study includes 76 health staff (general practitioner, nurse) working at primary healthcare institutions in Edirne province. In the study, it's tried to be reached whole universe. In the period of the research, those who refused to participate in the study and who authorized were excluded. Voluntary setting was conducted. To examine the perception of shared leadership 46 health staff (general practitioner, nurse) working at primary healthcare institutions were surveyed (60.52 %). The 24-item questionnaire used in data collection was developed based on previous researches and expert opinions. The questionnaire has two parts. The first part consists of 8 questions regarding demographic characteristics and the second part consists of 16 questions (four options Likert scale) related to the perception of shared leadership. The Cronbach's alpha coefficient of the scale was found to be 0,83. All analyses were performed by SPSS 13 statistical software package. 69.6% of those surveyed are woman, 56,5% are nurse, 71,7% have bachelor degree and only 8,7% of those surveyed are specialist physician. The data analyses revealed that there is a significant difference between gender and perception of shared leadership (p=0,013) and between job and perception of shared leadership (p=0,006). According to the shared leadership scale means, nurses more tended to share leadership roles in primary healthcare institutions. And it was found that there is a significant difference between gender and perception of shared leadership. It can be due to the majority of the nurses in the study.

Keywords:

Leadership, Shared leadership, Primary Healthcare

As it can affect the performance and the motivation of formal organizations and other informal groups, leadership is a very important phenomenon for all societies and organizations. In spite of having different objectives, both wolf packs and human societies need to be directed. However, they choose leaders according to their needs. So, the fact that makes someone a leader is the needs of his/her society, organization or other informal groups. If the organization needs radical changes, then the person who will lead these changings should be appropriate for this kind of activities. As it can be understood, leadership is a very complex concept and it has so many things to take into account. According to Eren (2008), leadership issue is always available in the history and it would not be a wrong expectation that leadership concept will be available even in the future. Researchers have done a lot of researches to determine the most effective leadership style over the years, and these studies still continue (Palestini, 2009). In the first studies, researchers tried to identify the distinctive features of leaders from non-leaders. Those who were conducted these kind of studies determined some distinctive characteristics of leaders such as intelligence, confidence, consistency and charisma. A second approach tried to explain leadership in terms of leader's behavior. In these studies, researchers tried to make the definition of best leadership behaviors such as task oriented leadership and relationship oriented leadership. Thirdly approach emerged as a contingency approach to explain the inability of the previous two approaches (Robbins, 1998). It tried to define best leadership traits and behaviors in different situations. After these three approaches, various approaches also emerged. One of them is that leadership is an activity shared or distributed among individuals who are stakeholder a group or an organization.

Some definitions of leadership in the literature are as follows:

- Leadership is the process of motivating other people to behave in certain ways in order to achieve certain goals (Hannagan, 2008).

- Leadership is an art that motivating and coordinating groups or individuals to achieve organizational objectives (Benli and Özalp,1996).

Despite being a common research area, leadership is still a matter of debate. And leadership can be interpreted from different point of views. Shared leadership is one of these point of views and is a new approach to leadership phenomenon (Şişman, 2014).

With the acceleration of international competition, globalization and communication speed, organizations need flexibility, cost effectiveness and productivity more and more. Therefore, classical leadership approaches are becoming insufficient to meet these kind of organizational needs. When the leadership responsibilities are distributed among workers and managers (they must have similar characteristics), then the total business activities will become better managed. Shared leadership includes using all the capabilities of human resources at the maximum level by empowering individuals and giving them an opportunity to take leadership positions in their areas of expertise (https://hbr.org/2010/05/sharing-leadership-to-maximize; Hitt, Keats and Yucel, 2003).

Some shared leadership definitions referred to in the literature are as follows:

Authors	Definition	Measure
Pearce & Sims (2002)	Distributed influence from within the team (p. 172). Lateral influence among peers (p. 176).	Ratings (aggregated to team level) on behavioral scales for five leadership strategies: aversive, directive, transactional, transformational, and empowering.
Sivasubramanium, Murry, Avolio, & Jung (2002)	Collective influence of members in a team on each other (p. 68). How members of a group evaluate the influence of the group as opposed to one individual within or external to the group (p. 68).	Team Multifactor Leadership Questionnaire (TMLQ) aggregated to the team level.
Ensley, Hmieleski, & Pearce (2006)	Team process where leadership is carried out by the team as a whole, rather than solely by a single designated individual (p. 220).	Ratings (aggregated to team level) on behavioral scales for four leadership strategies: directive, transactional, transformational, and empowering.
Mehra, Smith, Dixon, & Robertson (2006)	Shared, distributed phenomenon In which there can be several (formally appointed and/or emergent) leaders (p. 233).	Qualitative coding based on visual analysis of leadership network diagrams.
Carson, Telsuk, & Marrone (2007)	An emergent team property that results from the distribution of leadership influence across multiple team member (p. 1218).	Density analysis based on leadership sociograms of social network theory.
Hoch, Pearce, & Welzel (2010)	A collective social influence Process shared by team members and aimed toward the achievement of one or more common goals (p.105).	Ratings (aggregated to team level) on behavioral scales for five leadership strategies: aversive, directive, transactional, transformational, and empowering.
Small, & Rentsch (2010)	An emergent team process defined by the distribution of leadership functions among multiple team members (p.203).	Social Network Analysis (SNA), Team Multifactor Leadership Questionnaire (TMLQ), and Leader Behavior Description Questionnaire (LBDQ)

Source: Retrieved from Park and Kwon, 2013

Shared leadership is a respectively new field of study and has close relationships with some management concepts like empowerment, delegation, collaboration and shared vision. Shared leadership is appropriate especially in organizations which has a matrix organizational structure. It is necessary to share leadership that every single person should take his/her responsibility and there should be a common ideal. However; even if those who will share leadership responsibilities are able to take their own responsibilities and have a common ideal, they cannot be successful if they aren't experienced in self leadership (Van Wart, 2014). There are some circumstances that shared leadership can be implemented effectively (Pintor, 2013):

- If there are complex tasks which require high knowledge and skills in different areas.
- If the tasks of organization are interdependent.
- If tasks require creativity in the processes.
- If the aims are adopted by employees and they are willing to go extra miles.
- If tasks don't require to be done urgently.

Accordingly, shared leadership is a different type of leadership which can be used in organizations in certain situations. If the circumstances which are cited above exist, then organization will enhance its' performance and

employees will be motivated to achieve further. Otherwise, this kind of practices may cause problems in the process of achieving tasks and problems may arise between employees (Craig, Pearce and Wassenaar, 2015; Pintor, 2013; Ullah and Park,2013).

Material and Method

This study aims to determine the perception of shared leadership among primary care health service providers. For this reason, the 24-item questionnaire which was used in data collection was developed based on previous researches and expert opinions. The questionnaire has two parts. The first part consists of 8 questions regarding demographic characteristics and the second part consists of 16 questions (four options Likert scale) related to the perception of shared leadership. The questionnaire was pilot-tested on 35 people for content, language clarity, and ease of use and to estimate the time required for filling out the questionnaire. Thus, the omissions, errors, and expressions that were difficult for the participants to understand were eliminated. Test and re-test were performed for reliability analysis and the Cronbach's alpha coefficient of the scale was found to be 0,83. After all factor analysis was conducted and there isn't any question which requires to be excluded.

The universe of the study includes 76 health staff (general practitioner, nurse) working at primary healthcare institutions in Edirne province. In the study, it's tried to be reached to whole universe. In the period of the research, those who refused to participate in the study and who authorized were excluded. Voluntary setting was conducted. To examine the perception of shared leadership, 46 health staff (general practitioner, nurse) working at primary healthcare institutions were surveyed (60.52 %). Each participant was ensured that the information he or she provided individually would not be shared with anyone.

Hypotheses of the study:

1- There is/isn't a difference between gender regarding shared leadership perception.

2- There is/isn't a difference between occupation regarding shared leadership perception.

3- There is/isn't a relationship between age and shared leadership perception.

Findings

All analyses were performed by SPSS 13.0 statistical software package. Demographic characteristics of the study participants are as follows:

Demographic Characteristics of Study Participants	f	%
Gender		
Female	32	69,6
Male	14	30,4
Total	46	100
Education		
High school	4	8,7
Associate	9	19,6
Bachelor	33	71,7
Total	46	100
Occupation		
Nurse	26	56,5
Physician	20	43,5
Total	46	100

69.6% of those surveyed were female while 30.4% were male. 56.5% of the study participants were nurse while 43.5% were physician. 71,7% of the study participants have bachelor degree. and only 8,7% of those surveyed were specialist physician.

Firstly, Kolmogorov-Smirnov was used to measure normal distribution. According to this test (p=0.03), series of leadership scores weren't normal. So, non-parametric tests were used. According to Mann Whitney-U, there is a statistically significant difference between gender regarding shared leadership perception (p=0,013) and according to Kruskal-Wallis, there is a statistically significant difference between occupation regarding shared leadership perception (p=0,006). According to Spearman Correlation, there isn't a relationship between age and shared leadership perception (p=0.09). According to the shared leadership scale means, nurses (2.30±0.11) and female

employees (2.22±0.57) more tend to share leadership roles in primary healthcare institutions than physicians (1.75±0.15) and male employees (1.69±0.79).

Discussion

There are many studies also in the field of healthcare related with shared leadership that usually takes place in education field. Some of these studies are made by Spooner et al (1997), Merkens and Spencer (1998), Konu and Viitanen (2008), Scott and Caress (2005), Steinert et al. (2006) etc. According to the shared leadership scale means, nurses (2.30±0.11) more tended to share leadership roles in primary healthcare institutions than physicians (1.75±0.15). And it was found that there is a significant difference between gender and perception of shared leadership (p=0.006, p=0,013). Besides, Konu and Viitanen in their study also determined that women are more prone to shared leadership. And this finding is consistent with that found in this study. In another study conducted by Steinert (2006), it was found that non-physician workers are more likely to shared leadership, and it also has robust parallel with this study. For further studies it can be useful to inquire why the nurses or women are more willing to share leadership roles.

As the globalization has accelerated in this century and competition between businesses has escalated, organizations must enhance the productivity and effectiveness and this must be done within the framework of cost effectiveness. Besides, needs and demands of the customers change very fast and every single customer has his/her own preferences. Therefore, tasks are becoming more complex day by day. In this context, shared leadership gains importance and organizations will have to imply this kind of leadership in workplace in the future.

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Comparison of Health Financing Systems

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Abstract

There are different financing systems for healthcare over the world. Commonly three basic systems are known for financing; Beveridge, Bismarck and private systems. But contrary to general belief on, there is no system over all countries which provides health services for free. Each system has its effects on delivery of services, outcomes and burden of expenses on people's incomes. So, in order to assess a country's health system, it must be compared to other countries in terms of finance, delivery and outcomes. According to results, the percentage of covarage cost in people's income; %7-9 for United States of America, %4.5-6,5 for United Kingdom, %7,3 for Germany, and %12,5 for Turkey. In Beveridge system, these payments come from taxes but tax rates are higher than other countries and there are strong restrictions on delivering of services. In Bismarck system, employer and employees must pay for health insurance and that requires a strong industry and no informal economy. So, people need to earn sufficiently to can afford health costs. In America, before the Affordable Care Act, employer provided health insurance were dominant in the sector. But now, there are a lot of individual health insurance system that people can choose according to their income and other social conditions. When Turkey is compared to other countries, it can be seen that the expenses of health care more catastrophic than other countries. And also people unfortunately don't get accredited health care.

Keywords

Financing • Health Systems • Health Financing • Health Insurances

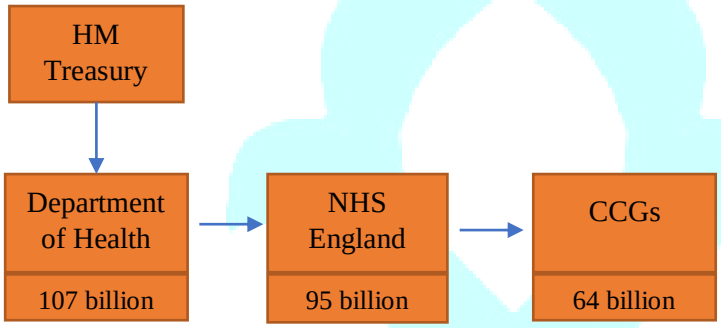
The Conceptual Framework

Health services requiers technolgy, expensive investments and also human resources. Therefore, a financing mechanism need to be implemented to make services sustainable. Health services can not be for free in any country. Some countries chooses the implementing health services without payment at the using time. This doesn't mean those services are implemented without any charges which afforded by users. The costs of health services must be defrayed by taxes, insurance premiums or out of pocket payment. Countries have differences at this point. Some countries prefer tax based system while some prefer to defray by social or private insurance's premiums. There are mainly four types of models which widely known; Beveridge, Bismarck, Semashko (Collectivist System) and Private Insurance (Free Market System). In the study, the cost of health covarage in United Kingdom, United States, Germany and Turkey will be compared. Before the analysis, the financing system of each system will be explained and discussed.

Health services are financed via taxes in the United Kingdom. The health system is called as National Health System which consist of NHS England, NHS Scotland, NHS Wales, Health and Social Care in Nothern Ireland

(Chang et al, Accessed Date: 07.01.2017) In current, main component of NHS is Clinical Commisioning Groups (CCGs) which are responsible for the health of people who live in that location. Also local authorities have many duties in provison of services and CCGs and local authorites work together to maintain desired outcomes. About 64 billion £ of 107 billion is allocated to CCGs from NHS. The money flows as shown below (NHS, 2014; NHS, 2013)

Figure 1: How to Money Flows in NHS



There are increasing tax rates according to income levels. People who gain up to 11.000 £ do not pay income tax. After the 11.000 the lowest tax rate is %20 and the highest is %40.

Chart 1: United Kingdom Tax Rates

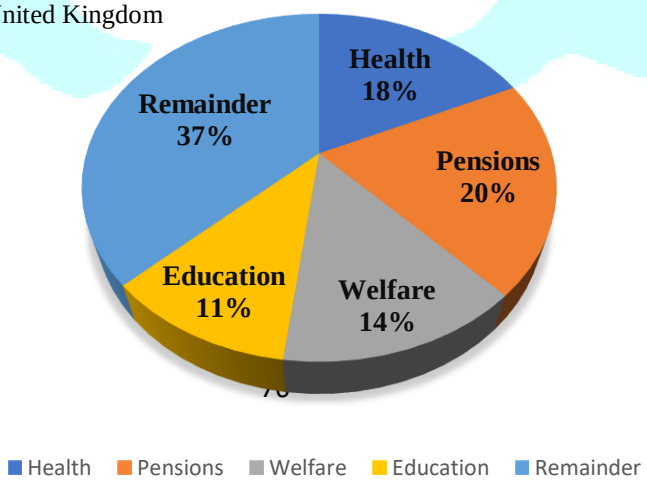
Band	Annual Income	Tax Rate
Basic Rate	11.001 to 43.000	%20
Higher Rate	43.001 to 150.000	%40
Additional Rate	Over 150.000	%45

Source: https://www.gov.uk/income-tax-rates: Accessed Date: 7.01.2017

Apporixmately, %18 of income tax of a person goes to health care expenses which makes about %4,5 to 6 of a person's income (Chang et al, Accessed Date: 07.01.2017; Jacksonvile, 2009))

Health care expenses has %18 share in total public spending (central and local) in United Kingdom (http://www.ukpublicspending.co.uk/current_spending, Accessed Date: 07.01.2017).

Chart 2: Public Spending in United Kingdom



United States of America (U.S.A.) health system is mainly based on free market and choices. Individual private insurances is rather than public schemes. There are mainly two types of public insurance system which known as; Medicare and Medicaid. But they are not funded just by transfers from taxes. Medicare requires premiums and consumer contributions as well and mainly includes older people who aged above 65. Medicaid is funded by federal and state budgets but includes some restrictions. It serves to people who carrying AIDS, poor elderly people, abondened and in need of care children under 18 years and in need of care pregnant women (Shi and Shing, 2014).

Health insurances are preferred and purchased by individuals in U.S.A. There are four types of coverage; Platinum, Gold, Silver and Bronz. According to individiuals preferences, location where they live and consumption of smoke and alcohol, they are offered health insurance packages by insurers. There are two health plan in the insurances; HMO and PPO. HMO provides a cheaper and more restricted services while PPO provides more flexible and expensive services (Pılzer and Lindquist, 2015).

Chart 3: Average Premiums in U.S.A. for Individual Insurance

2015 Avarege Montly Premium	2016 Avarage Monthly Premium	Change
356 $	286$	%8

Source: Department of Health and Human Services, 2015

Also there are maximum limit for out of pocket payment in U.S.A. They were 6,850$ for individual, 13.700$ for family plan in 2016. For 2017, they are 7.150$ for individuals and 14.300 $ for family plans. Out of pockey payment doen not include montly premiums (https://www.healthcare.gov/glossary/out-of-pocket-maximum-limit/).

Germany has a mandatory social health insurance which is a multiple insurance system. Coverage is provided by many small and independent plans. There are approximately 200 competing health plans (sickness funds) which collect contributions. All citizens are forced by law to entitlement to an insurance program (Ridic et al, 2012; Britnell, 2015). The contributions to health insurances are determined mainly by income level (Health Care in Germany, 2015, Accessed Date: 07.01.2017) Employees and employers share the health contributions by half (http://www.howtogermany.com/pages/healthinsurance2.html; Accessed Date: 01.07.2017). The people who earn less than threshold automatically insured in public health insurance (4350 £). People who earn more than threshold can purchase private health insurances (https://www.toytowngermany.com/wiki/Health_insurance, Accessed Date: 07.01.2017). About 90 percent of population is covered by 200 competing public insurance plans (Ellis, R.P., Chen, T., Luscombe, E., 2014).

In Turkey health system is financed through mandatory social health insurance. But contrary to Germany, the financing system is not multiple. Social Securty Institution (SSI- SGK) is the single health insurance body (WHO,

2011). All citizens are under the SSI by law. Self employed or unemployed people must have income level test to determine their contribution amount. Employees and civil servants pay their contributions by automatic deduction from their payrolls. The share of private insurances is so low. It is 5.8 percent of total population (OECD Statistics, Accessed Date: 07.01.2017).

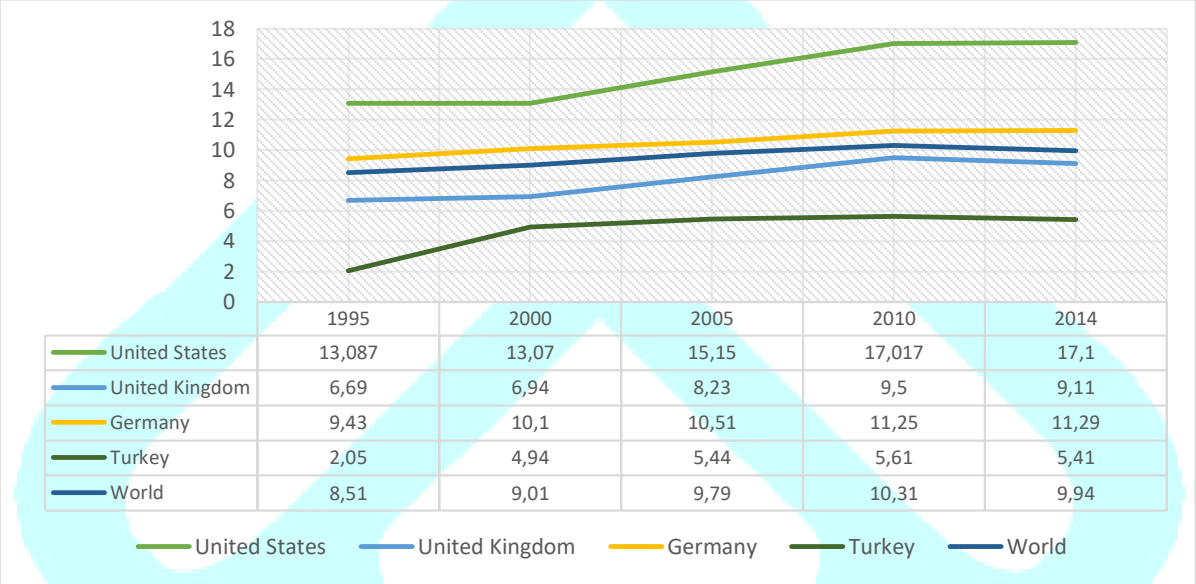
Method

In the study, the costs of health covarages are compared between countries. The literature is reviewed to achieve the information of "cost of insurances", "tax rates", "premiums". The governmental web sites are used to get information. A web based insurance cost calculator is also used for United States of America (http://www.webmd.com/health-insurance/insurance-costs/insurance-cost-calculator, Accessed Date: 07.01.2017). To illustrate the results, two job (Graduate Research Assistant and Postgraduate Teacher Professor Doctor) are selected and their incomes and health insurances costs are calculated according to literature and web based calculators.

Results

The health expenditures of countries as percentage of GDP as below.

Chart 4: Health Expenditures as Percentage of GDP



	1995	2000	2005	2010	2014
United States	13,087	13,07	15,15	17,017	17,1
United Kingdom	6,69	6,94	8,23	9,5	9,11
Germany	9,43	10,1	10,51	11,25	11,29
Turkey	2,05	4,94	5,44	5,61	5,41
World	8,51	9,01	9,79	10,31	9,94

Source: World Bank Statistics, Accessed Date: 30.12.2016

United States has the highest health expenditure rate (17,1) among countries while Turkey has the lowest (%5,41). For Germany it is %11,29 and for United Kingdom %9,11 in 2014.

Germany, U.S.A. and United Kingdom has lower inflation rates. Respectively, %1,17, %1,15 and 2. It is %9 for Turkey. Therefore, the money which spent on health can affect people's life more in Turkey. And also shadow economy is much more lower in Germany (%12,2), United Kingdom (%9,4), United States (%8,4) (Schneider, 2015).

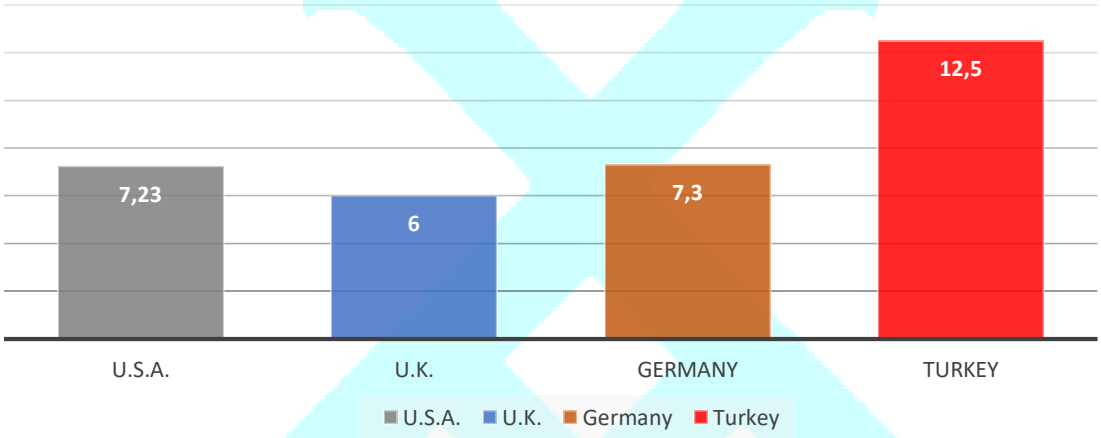
The annual income (http://www.payscale.com/; Accessed Date:07.01.2017) and covarage costs of countries are as shown below.

Chart 4: Annual Income and Health Covarage Costs of Selected Countries

	Annual Income	Max. Monthly Premium	Annual Income	Tax for Health (Monthly)	Annual Income	Monthly Insurance Cost	Annual Income	Monthly Insurance Premium
	USA		UK		Germany		Turkey	
Research Assistant	26.055 $	157 $	21.567 £	70,70 £	30.000 £	200 £	31.356 TL	326 TL
Professor	84.157 $	581 $	66.308 £	397,84	58.284 £	388 £	55.000 TL	560 TL

According to these results, the percentage of covarage cost in people's income; %7-9 for United States of America, %4.5-6,5 for United Kingdom, %7,3 for Germany, and %12,5 for Turkey.

Chart 5: Avarage Health Covarage Costs as Percentage of Income



In United States, health costs vary according to states, choices of peoples, ages and consumption of smoke. But when it is examined, contrary to general belief of U.S.A. is expensive, the percentage of costs is affordable for American people thanks to they earn enough. The rate of U.S.A. is almost the same with Germany. In Turkey it is observed that, it has the biggest percentage in people's income.

Conclusion

No country can afford providing all types of health services without consumer contributions and payments. All systems which include tax based financing, statutory premium based financing or individual health insurances based financing directly effect the consumers. Contrary to general misunderstanding that the systems which in financed by taxes are for free while providing services to consurmers. In United Kingdom, the proportion of health taxes in people's monthly revenue is %6. The proportion of statutory health insurance premiums in Germany is %7.3. It means, without sufficient resources no health services would be provided. Therefore, instead of difference between countries, all systems requires their citizen's contributions. In the study, the burden of health financing related costs on citizen's are searched for four country; U.S.A., U.K., Germany and Turkey. Acccording to results,

the burden of health insurance costs is higher than other countries in Turkey when it is compared according to economical indicators.

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Diabetes In Balikesir: A Case Study

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Abstract

Diabetes polyclinics of 11 hospitals, 2 central and 9 district hospitals all of which are related to Balıkesir Public Hospitals Union, in total were analyzed. Efforts were made to draw a diabetes picture of Balıkesir by using data of City Health Directorate and Civil Registry. The data were analyzed and a comparison was made with 9 cities which have similar number of population.

It was concluded that diabetes prevalence and incidence are high and current diabetes polyclinics are not adequate in Balıkesir; the reasons were researched and recommendations were developed to eliminate those reasons.

Keywords

Balikesir · Diabetes · Solution · Prevalence · incidence

An overview of Balıkesir

Balıkesir's population is 1.189.057 and it has 20 cities. It is located in the west of Turkey and has coast to Aegean and Marmara seas. According to the data published by Turkish Public Health Institution, with its obesity frequency of %30,7 the number of obese people in West Marmara, which includes Balıkesir, is higher than Turkey's average (beslenme.gov.tr, 2016). The following are causes and numbers of death occurred in 2015.

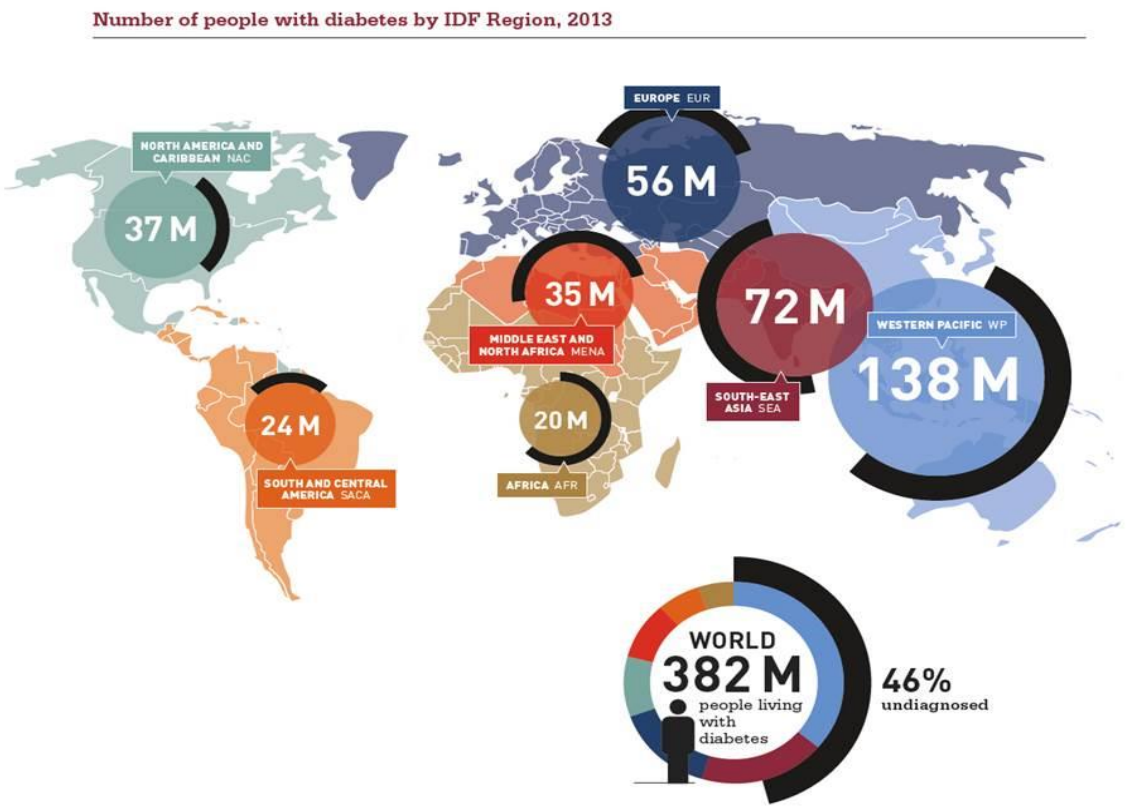
Table 1: 2015 Balıkesir Death data

Usual residence	Balıkesir
Diseases of the circulatory system	4724
Malign and benign neoplasms	1932
Diseases of the respiratory system	1080
Endocrine, nutritional and metabolic diseases	313
Diseases of the nervous system and the sense organs	547
External causes of injury and poisoning	465
Other	1067
Total Number	10128

Diabetes, Turkey and World's Situation

Diabetes is a systemic and chronic metabolism disease that concurs with hyperglycemia, dyslipidemia and glycosuria many clinical and biochemical findings that accompany. Diabetes is a common disease with high risk of mortality and it results in vascular, renal, retinal or neuropathic disorders in the long term along with acute metabolic complications. According to IDF's Sixth Diabetes Atlas, approximately half of world's diabetes population is in three countries (China, India and USA). In accordance with 2035 estimates in this atlas, Turkey is among the top 10 country that will have the highest rate of diabetes in the world in terms of diabetic population. It is anticipated that there are more than 6 million of diabetes patients in our country.

The same number of people has glucose or prediabetes. These people have a much higher risk of developing diabetes than normal (Idf.org,2013).



https://www.idf.org

Method

The data sources obtained from HBYS (Hospital Information Management System) used in Balıkesir Public Hospital Union Secretary General's Office and the data were explained as a result of the analysis. Diabetes polyclinic reports of 17 State Hospitals, which are related to our Secretary General's Office, were evaluated. Furthermore, literature review was made and efforts were made to evaluate the data within general framework.

Findings

Balıkesir Diabetes Data

(These data belong to 2014 and extracted from Decision Support System by means of City Health Directorate).

Total number of diabetes patient in Balıkesir: 86.189

Number of patients who newly caught the disease in 2014: 13.259

Total number of woman diabetes patients in 2014: 52.193

Total number of man diabetes patients in 2014: 33.996

2014 total number of examination: 10.559.000

2014 Balıkesir population: 1.189.057

Evaluating this data;

City-wide diabetes incidence rate 2,32%

Diabetes prevalence is 15,12%.

Number of diabetes patient in all the patients who were examined is 8,16 ‰.

60% of diabetes patients are women and 40% are men.

When TURDEP-II (Turkey Diabetes, Hypertension, Obesity and Endocrinological diseases Prevalence Study/ January 2010-June 2010) results were reviewed, it was not found any information related to Balıkesir. Therefore, considering it was possible that comparing Balıkesir with cities of similar population would draw us a clearer picture, we established 8 cities with closest population to each other and compared diabetes data (nufusu.com, 2015).

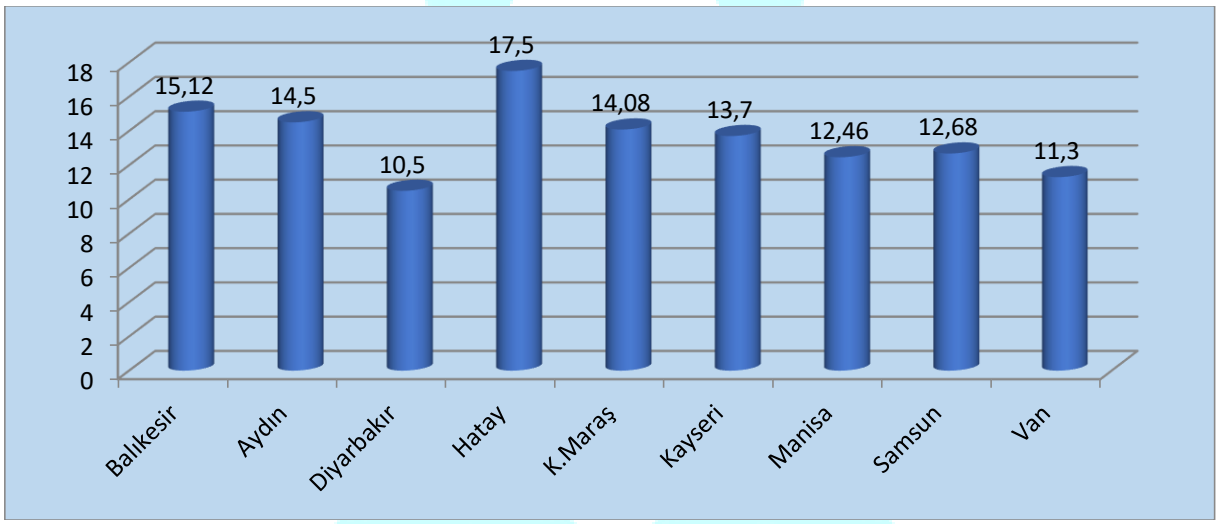
Table 2: Balıkesir Diabetes Data

City	Population	Total Diabetes Patient	New Diabetic Patients
Balıkesir	1 189 057	86189	13259
Aydın	1 041979	66819	12141
Diyarbakır	1 635048	37280	5907
Hatay	1 519836	85436	11202
K.maraş	1 089038	46381	7212
Kayseri	1 322376	61848	6207
Manisa	1 367905	70237	10329
Samsun	1 269989	65064	9078
Van	1 085542	23828	4102

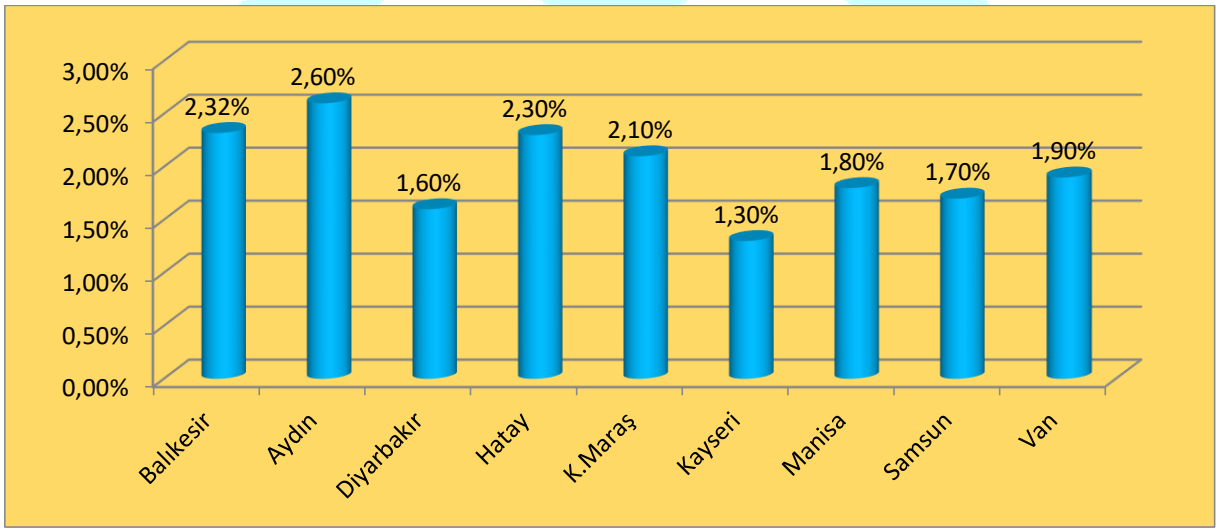
Table 3: Diabetes prevalence and incidence speed

City	Prevalence	Incidence Speed
Balıkesir	%15,12	%2,3
Aydın	%14,5	%2,6
Diyarbakır	%10,5	%1,6
Hatay	%17,5	%2,3
K.maraş	%14,08	%2,1
Kayseri	%13,7	%1,3
Manisa	%12,46	%1,8
Samsun	%12,68	%1,7
Van	%11,30	%1,9

Graphic 1: Comparison of 9 Cities' Diabetes Prevalence



Graphic 2: Comparison of 9 Cities' Diabetes Incidence Speed



Evaluation of Data

Considering above data, we observe that prevalence and incidence speed of Balıkesir within these 9 cities with similar population is considerably higher. What does this mean? Balıkesir has the highest value after Hatay in terms of diabetic patient.

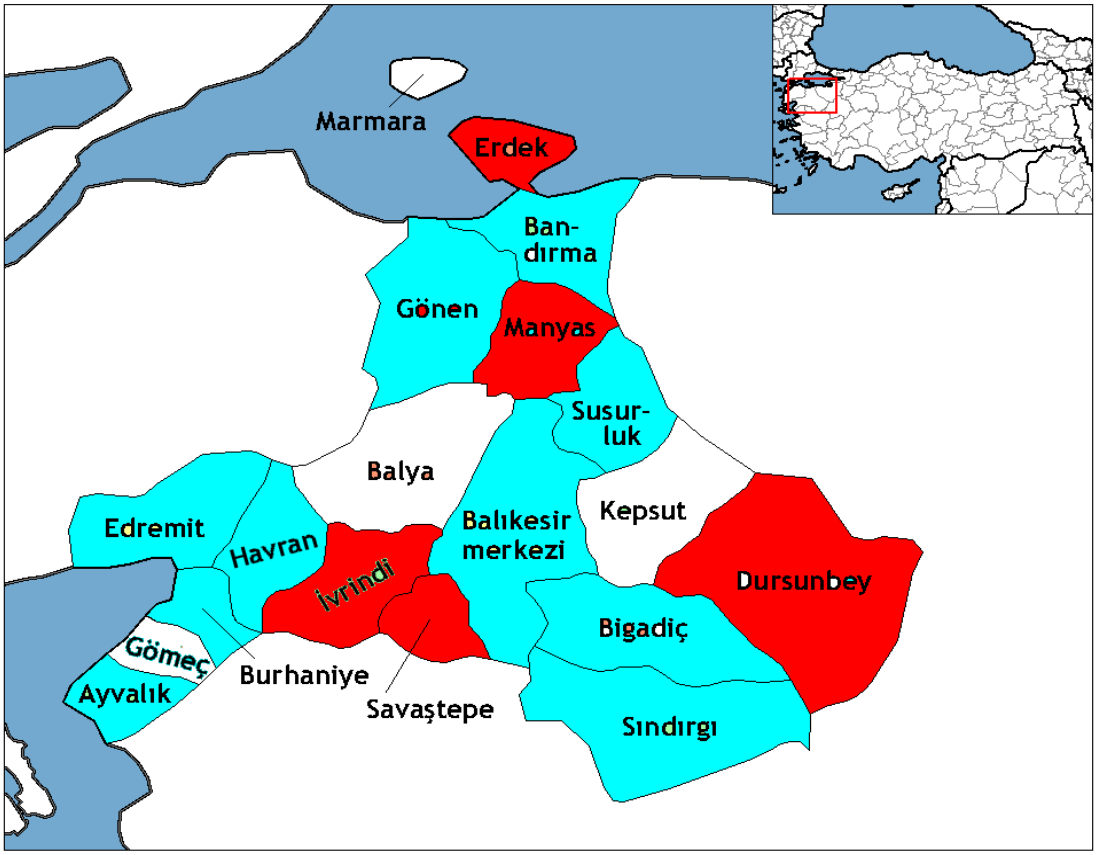
However, it is more ominous that diabetes incidence speed is high. This shows how fast we obtain diabetic patients. After Aydın, Balıkesir is the city that obtains diabetic patient the fastest. We can state that diabetes in Balıkesir progresses more aggressively than other cities. This matches with obesity data declared by Turkey Public Health Institution. Number of obese people over Turkey's average increases the number of diabetes which it is directly connected to. It is thought that nutritional habits are the most significant underlying reasons. Below, there is annual death data of the same cities.

Table 4: Comparison of death causes in 9 cities

Usual residence	Aydın	Balıkesir	Diyarbakır	Hatay	K.Maraş	Kayseri	Manisa	Samsun	Van
Diseases of the circulatory system	3358	4724	1709	2688	1793	2278	4326	3713	982
Malign and benign neoplasms	1374	1932	837	1066	647	1284	1695	1572	654
Diseases of the respiratory system	828	1080	369	690	409	924	1103	852	348
Endocrine, nutritional and metabolic diseases	263	313	185	511	151	390	483	185	71
Diseases of the nervous system and the sense organs	269	547	137	341	195	371	385	359	70
External causes of injury and poisoning	441	465	129	431	132	368	489	409	130
Other	787	1067	814	1093	684	1148	999	916	665
Total Number	7320	10128	4180	6820	4011	6763	9480	8006	2920

What Do We Do?

As it is known, it is aimed to provide training to diabetes patients through diabetes polyclinics in hospitals in city center and districts. Diabetes polyclinics are providing service in 2 hospitals in city center and 9 hospitals in districts. However, if we evaluate these polyclinics basing on the number of diabetes patients they contact, we can state that there are problems in operation. Below, there is brief information on diabetes polyclinics.



◯Districts without diabetes polyclinic

◯Districts that have diabetes polyclinic

◯Integrated regions. Not related to our Secretary General Office

Central Hospital I

Number of Diabetes Nurse: 1

Certificate: Yes

Total number of diabetic patient applied to hospital in 2014:14951

Total number of diabetic patient applied to hospital within 3 months of 2015: 3699

Number of patients provided training in 2014: 0 (Opened in January 5th 2015)

Number of patients provided training in the first 3 months of 2015: 171

A new pediatric endocrine specialist happens to have started working in the hospital. There is one nurse working in diabetes polyclinic.

Central Hospital II

Number of Diabetes Nurse: 2

Certificate: Only one of the nurses has certificate

Total number of diabetic patient applied to hospital in 2014:15453

Total number of diabetic patient applied to hospital within 3 months of 2015: 4856

Number of patients provided training in 2014: 714

Number of patients provided training in the first 3 months of 2015: 595

The reason for the increase of the number in first 3 months is employment of a new Endocrine Diseases Specialist.

District Hospital I

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:12023

Total number of diabetic patient applied to hospital within 3 months of 2015: 2829

Number of patients provided training in 2014: 850

Number of patients provided training in the first 3 months of 2015: 219

The person who is assigned as diabetes nurse is also working in internal diseases and keeps 1 watch in Internal service. Trainings are provided to the hospital coming to polyclinic in a room in the service and there are 5 Internal Diseases polyclinics in total.

District Hospital II

Number of Diabetes Nurse: 2

Certificate: No (Attended to an accelerated program with own means)

Total number of diabetic patient applied to hospital in 2014:12106

Total number of diabetic patient applied to hospital within 3 months of 2015: 4225

Number of patients provided training in 2014: (From April to December) 126

Number of patients provided training in the first 3 months of 2015: 80

Diabetes nurse works as service supervisor in pulmonary medicine and keeps 2 supervisor watches. (Friday-Saturday)

District Hospital III

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:5923

Total number of diabetic patient applied to hospital within 3 months of 2015: 1652

Number of patients provided training in 2014: 2458

Number of patients provided training in the first 3 months of 2015: 71

Diabetes nurse deals patients who come for report and also measures patients' weight, height and waist circumference. The number is high for this reason. The number of patients provided training is actually 109. Diabetes nurse keeps injection watch and reinforces units such as EKG, SFT and bloodletting units.

District Hospital IV

Number of Diabetes Nurse: 1

Certificate: Yes (Florence Nightingale)

Total number of diabetic patient applied to hospital in 2014:3861

Total number of diabetic patient applied to hospital within 3 months of 2015: 880

Number of patients provided training in 2014: 497

Number of patients provided training in the first 3 months of 2015: 145

Nurse is working actively in diabetes polyclinic. There are 2 internal medicine polyclinics. The fact that there is a few number of patients sent from the polyclinic results use of diabetes polyclinic inefficiently.

District Hospital V

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:5551

Total number of diabetic patient applied to hospital within 3 months of 2015: 1384

Number of patients provided training in 2014: (Opened in January 2015)

Number of patients provided training in the first 3 months of 2015: 59

There are 2 active internal medicine polyclinics.

The fact that there is a few number of patients sent from the polyclinic results use of diabetes polyclinic inefficiently.

District Hospital VI

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:2581

Total number of diabetic patient applied to hospital within 3 months of 2015: 722

Number of patients provided training in 2014: (Opened in February)

Number of patients provided training in the first 3 months of 2015: 76

Trainings are provided by internal medicine supervisor nurse.

District Hospital VII

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:3405

Total number of diabetic patient applied to hospital within 3 months of 2015: 1182

Number of patients provided training in 2014: 338

Number of patients provided training in the first 3 months of 2015: 146

District Hospital VIII

Number of Diabetes Nurse: 1

Certificate: No

Total number of diabetic patient applied to hospital in 2014:2153

Total number of diabetic patient applied to hospital within 3 months of 2015: 1245

Number of patients provided training in 2014: (Training started in March)

Number of patients provided training in the first 3 months of 2015: 16

Diabetes nurse is also working in quality unit and provides diabetes trainings in quality unit room.

District Hospital IX

Number of Diabetes Nurse: 1

Certificate: Yes

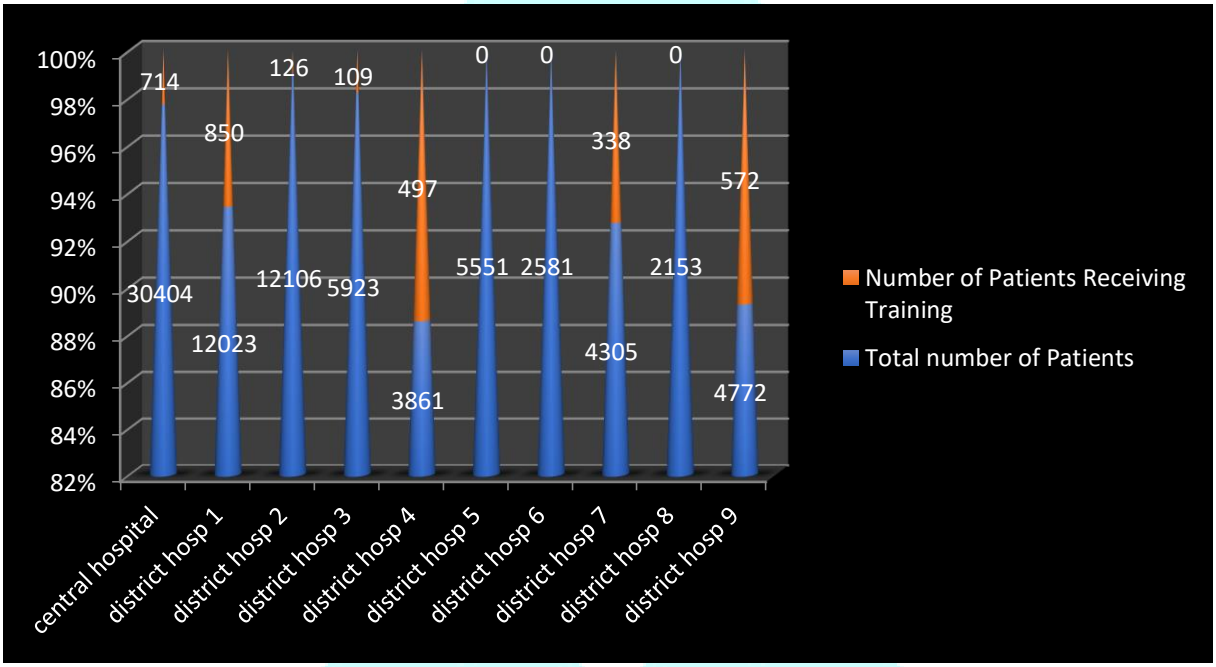
Total number of diabetic patient applied to hospital in 2014: 4772

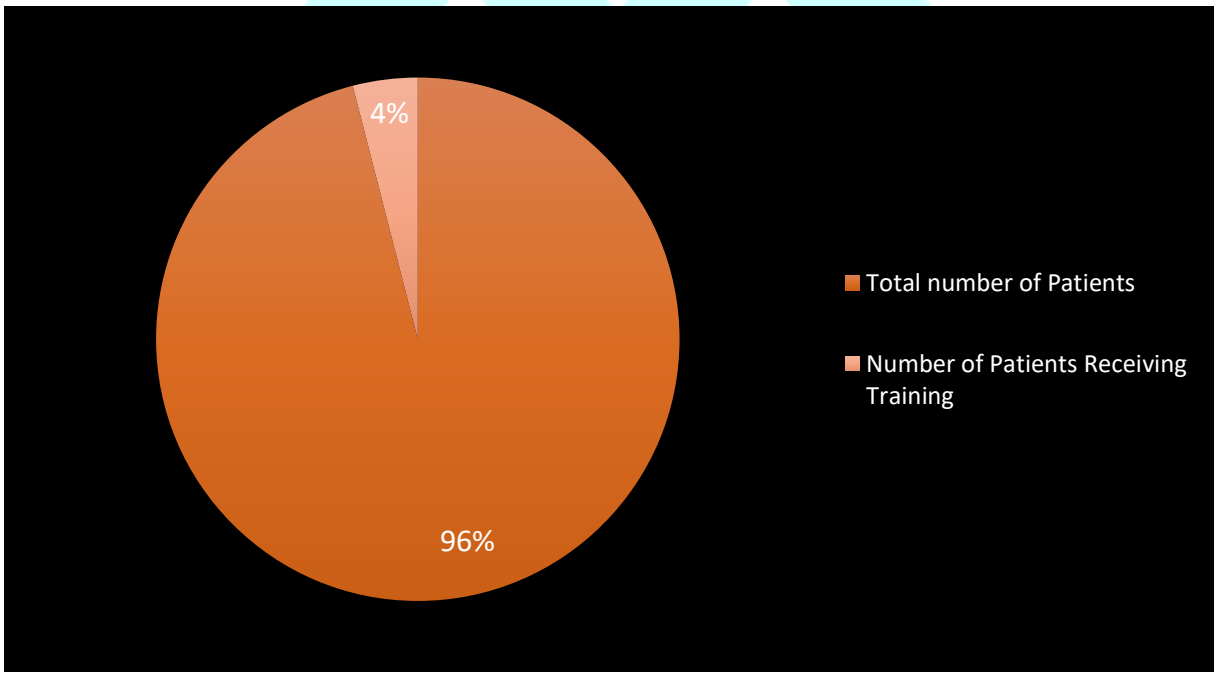
Total number of diabetic patient applied to hospital within 3 months of 2015: 1123

Number of patients provided training in 2014: 572

Number of patients provided training in the first 3 months of 2015: 123

Graphics 3 and 4: Total number of Patients and Number of Patients Receiving Training





These data indicate:

- Only 4% of patients who have the possibility to reach diabetes nurse can see diabetes nurse and this number is certainly much lower than target number.

Result

When all of these tables are evaluated, we can state a series of activities that Balıkesir should perform on management of diabetes. These are listed as:

1. Certificated diabetes training nurses should actively work in diabetes polyclinics and all diabetes patients should be recorded to be available for contact. The significance attached to trainings should be increased.
2. Project that will draw attention to diabetes should be increased. Diabetes is a disease that makes progress quiet and stealthily therefore patients might find out their disease too late. Therefore, it is of utmost importance to create social awareness.
    - ✓ Diabetes seminars should be held.
    - ✓ Cooperation should be formed with 112 and police station and alarm bracelets to be used in emergency action should be introduced and put to use.
    - ✓ National Education, police and soldiers should attend to diabetes seminars.

3. A large diabetes center should be planned and put into use.

We can state that Balıkesir requires a comprehensive diabetes center that will guide its districts. This center should meet diabetes laboratory examinations, employ specialist diabetes nurses and dieticians, provide eye and cardiology screening on certain days, possess all the material required for training and be able to provide service to patients coming from districts at weekends. A team of experts should be formed to this end and good practice centers that will form an example should be visited on-site and carried into action.

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Gönen Model In Diabetes Education

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Abstract

A new approach was developed concerning diabetes education in Gönen District of Balıkesir; patient opinions were dealt by conducting a questionnaire on the subject through phone.

According to developed model, patient trainings will continue to be provided actively in diabetes polyclinics and diabetes polyclinic activities will only be restricted on Fridays. Diabetes nurse, at the end of the shift on Thursday, will scan the patients on HBYS (Hospital Data Management System) who come to with impaired blood sugar among the patients who applied to emergency room for 1 week and will pursue their task as diabetes nurse on Friday by visiting these patients at home. They can also maintain watch on Saturday by visiting these patients. Visiting sequencing will be made by basing on patient's clinic (other disease diagnoses such as HT, Chronic obstructive pulmonary disease, concurring with impaired blood sugar) not by basing on the distance to hospital. Trainings will be repeated on subjects where there is failure, and erroneous behaviors concerning the diabetes will be corrected since there is not a turn-back from damages occurring in diabetes process that is managed wrong.

Keywords
Diabetes · Home visiting · Training · New model · Questionnaire

Patient Psychology and Healthcare Personnel Support in Chronic Diseases

Chronic diseases change lifestyles of patients and patient relatives and wreck current adaptation situation (Altan, 2014). Experiencing chronic diseases either physical ones such as diabetes and hypertension or psychological ones such as schizophrenia or bipolar is a situation that is generally difficult to cope with and it completely affects and shakes family structure. Every problem of change and adaptation is an element of stress. It is necessary to provide psychological support along with physiological support to patient and patient relatives for adaptation to newly emerging life conditions and maximizing the quality of present conditions. First stage to appropriate psychological support is informing the patient and patient relatives about the disease (Kronik Hastalıklarda Aileye Psikolojik Destek, 2015). Being informed about the disease reduces anxiety of patient and patient relatives.

In today's world where quality healthcare service is aimed by ensuring patient satisfaction, new approaches and new practices that are suitable to disease's nature and requirements aim to facilitate lives of patient and patient relatives. Among chronical diseases, diabetes is a disease that requires a multidisciplinary approach, involves the patient and patient relatives in terms of practice, knowledge and skills and forces the individual to obtain new

lifelong habits. In process of adaptation to this new situation, full support and training to be given by healthcare personnel will ensure that the patient learns about his disease, refrain from risky behaviors and is informed of complications that might develop acutely or chronically. Diabetes nurses are already providing trainings for this aim in Balıkesir central and district hospitals and efforts are put to help patients get used to this new situation that will last for years.

Significance of Training in Diabetes

After recovering from diagnosis of disease, diabetic individuals might start paying less attention to diet, exercise, taking prescribed medicines and going to doctor for regular controls. They might feel well. Many organs in the body are affected the moment when blood sugar exceeds normal values. Each hyperglycemia attack leaves a minimum damage and as a result of accumulating damages, long-term complications might occur such as cardiovascular diseases (malfunctions in main veins carrying blood to heart, brain and legs), microvascular diseases (malfunctions in small veins carrying blood to kidneys and eyes), neuropathy (nerve injury) and changes in skin, gum, teeth and feet. The upside is, these complications do not necessarily occur. If other risk factors such as blood sugar, hypertension and high LDL cholesterol are well controlled, emerging of long-term complications might be delayed or prevented (Ganda, 2012). However, even if glucose is taken under control after a complication appears, it is not possible to turn it back.

According to International Diabetes Federation 2014 data, diabetes' only direct cost to the world is 612 billion dollars and indirect cost is anticipated to be much higher. Diabetes constitutes roughly 11% of world healthcare expenses. Diabetes expenses take up 10 billion TL, in other words 23%, of healthcare expenses made by SGK (Social Security Institution). It is estimated that present per capita expense concerning diabetes in Turkey is 866 dollars per year. (Doustdar, 2016) It is spent more money on treatment of disease's complications rather than diabetes treatment and training. Considering this table, we observe that healthcare system treats outcomes of diabetes. We do not solve the problem from its route and spend our sources to by-pass surgery, amputations, chronic kidney diseases and treatments of stroke incidents. At this point, the significance of early diagnosis (this is achievable by social awareness) for treatment (Caballero, 2012). Bringing the diagnosis forward and taking risk factors of patients diagnosed with diabetes under control aggressively are critical to prevent complications.

We are of the opinion that participation of diabetes patients in trainings under normal circumstances should be regular without skipping any training.

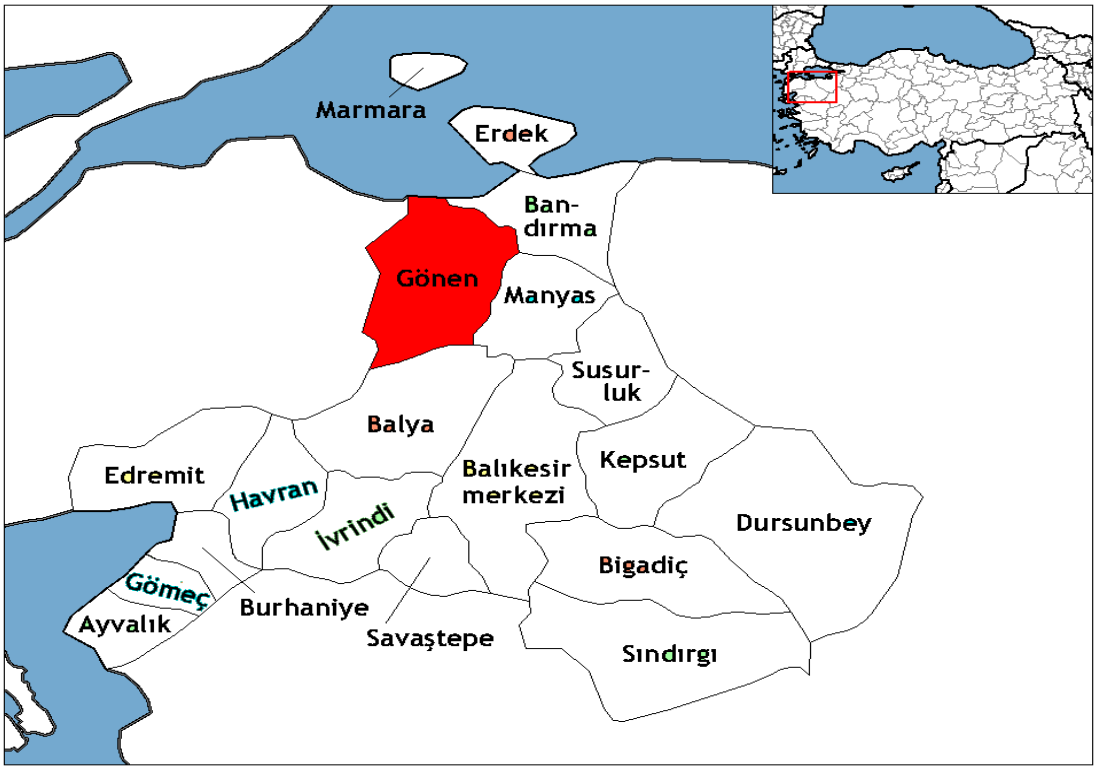
However, within this newly obtained disease and accompanying new habits, participation in trainings in diabetes polyclinics is generally hindered by various reasons and patient's frequencies of appointment with diabetes nurse extend. Old age, distance to hospital, incomprehension of gravity of disease and priority of work in social life based on agriculture and husbandry are the most significant elements that disrupt the visits to polyclinic (This information is acquired from diabetes polyclinic reports).

A New Perspective To Diabetes Training

With this study, a new training model which will provide maximum benefit to diabetes patients was evaluated and opinions of diabetes patients living in Gönen district were received through the questionnaire in the attachment. According to this, it is aimed to carry out determining the patients, who require close attention and repetition of training, and routine diabetes patient training in the hospital simultaneously.

In this line, the operation in diabetes polyclinics was planned as such. Patient trainings would continue to be provided actively in diabetes polyclinics and diabetes polyclinic activities would only be restricted on Fridays. Diabetes nurse, at the end of the shift on Thursday, would scan the patients on HBYS (Hospital Data Management System) who come to with impaired blood sugar among the patients who applied to emergency room for 1 week and would pursue their task as diabetes nurse on Friday by visiting these patients at home. They can also maintain watch on Saturday by visiting these patients. Visiting sequencing would be made by basing on patient's clinic (other disease diagnoses such as HT concurring with impaired blood sugar) not by basing on the distance to hospital. Visits of 30 minutes or more would be planned basing on clinics of patient. Patient would utilize this service within SGK and there would not be any demand of payment.

Gönen Examination



Gönen is one of 20 districts of Balıkesir. It's total population is 73095, central population is 42000 and rural population is 31095 (www.balikesirgonen.bel.tr.26.07.2016) according to 2014 population data. It is a district known for its rice agriculture. Death causes in Gönen were listed below according to 2015 data of Turkish Statistical Institution.

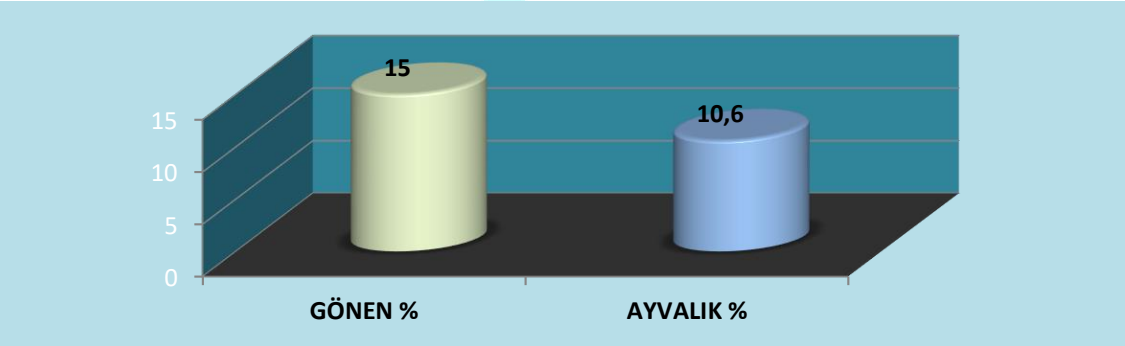
Table 1: Rates and number of death in terms of causes in Gönen in 2015

Usual residence	Gönen	Rates
Diseases of the circulatory system	169	31%
Malign and benign neoplasms	83	15,50%
Diseases of the respiratory system	66	12,30%
Endocrine, nutritional and metabolic diseases	80	15%
Diseases of the nervous system and the sense organs	111	20,80%
External causes of injury and poisoning	7	1,3%

Other	17	3,10%
Total Number	533	

Ayvalık is the district of Balıkesir which has closest population to Gönen. Rates of death due to metabolic diseases in 2015 of Ayvalık and Gönen districts are displayed in below graphic.

Table 2: Rates of death due to metabolic diseases in Gönen and Ayvalık districts in 2015



5923 diabetes patients applied to hospital as outpatient in 2014 in Gönen. The number of patients who applied to hospital between January 1st – August 31st in 2015 is 4278. The number of patients who are subject to our research and our target group and applied to emergency room due to impaired blood sugar were scanned as blood sugar over 400 mg/dl through laboratory module as of May and patients were established in this method. This list according to this method is as in below. These patients require emergency intervention, interview on diabetes repeatedly and absolute detection of a problem.

Table 3: The number of patient who applied to hospital with BS 400ml/dl in terms of months

Months	number of patients who applied to emergency with BS 400ml/dl
May	6
June	11
July	9
August	7

Considering May according to these results, the number of patient to visit per week is 1,5. It is observed that it is possible to reach more patients to lower the sublimit of 400 to 350 or 300 ml/dl in high blood sugar scan. Since our main objective in here is to contact the patient with the highest blood sugar level, it is possible to construct a visit system from the top of pyramid to bottom. Hence, when we made a scan with code of Insulin-dependent patient who applied to Gönen State Hospital in May, the number of patients we obtained was 21 and 400 mg/dl patient number was 6.

Questionnaire

All legal permissions were received in order to implement attached questionnaire to diabetes patients in Gönen and the questionnaire was conducted by professional pollsters. Records of 98 diabetes patients were accesed in total and questionnaire was performed with 67 patients. 12 questions were asked to patients. With these questions,

it was aimed to learn whether patients see diabetes nurse and patients opinions on whether diabetes nurses' home visits would be beneficial. 31,3% of participants were men and 68,7% of them were women. Age average of participants was 57,69 and average of weight was 79,41. 16,4% of them were smokers. Results are as such:

Table 4: Questions

QUESTIONS			
		Health Institution	Press, close environment etc.
Q. 1	Where do you obtain information about your disease the most?	66	1
		YES	**NO**
Q.2	Do you know there is a diabetes nurse in hospital you can receive training from?	58	9
Q.3	Would it make you feel safe to know there are health personnel you can receive information from about your disease?	63	4
Q.4	Do you have low motivation to follow diabetes rules?	45	22
Q.5	Do you know what to do when your blood sugar increases or decreases?	49	18
Q.6	Aside from routine checks, do you need to go to the emergency room because of diabetes?	14	53
Q.7	Are your relatives, people you live with interested in your disease?	13	53
Q.8	Would it make you happy if health personnel informed of this subject visit you at home? Or would it be beneficial for you?	49	18
Q.9	Does it scare you to live with diabetes?	41	26
Q.10	Did it ever happen that you could not apply to a health institution in order to receive help about your health problems or diabetes due to a problem?	9	56
Q.11	Do you think your kinsmen who live with you and are under risk would be protected from diabetes when they are visited and informed by health personnel?	47	20

Q.12	Does it make it easier for you to live with your disease when diabetes training nurse tells about your disease and the food that are appropriate for you or not in your own environment?	51	16

Table 5: Questionnaire Age Evaluation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1(19-33)	5	**7,5**	7,5	7,5
	2(34-48)	8	**11,9**	11,9	19,4
	3(49-63)	26	**38,8**	38,8	58,2
	4(64-78)	26	**38,8**	38,8	97,0
	5(79+)	2	**3,0**	3,0	100,0
	Total	67	**100,0**	100,0	

Table 6: Questionnaire Weight Evaluation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1(40-59)	10	**14,9**	15,2	15,2
	2(60-79)	25	**37,3**	37,9	53,0
	3(80-99)	23	**34,3**	34,8	87,9
	4(100-119)	7	**10,4**	10,6	98,5
	5(120 +)	1	**1,5**	1,5	100,0
	Total	66	**98,5**	100,0	
Missing	System	1	**1,5**		
Total		67	**100,0**		

Table 7: Question 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Health Institution	66	**98,5**	98,5	98,5
	Close environment	1	**1,5**	1,5	100,0
	Total	67	100,0	100,0	

Considering the answers to 1st question, we see that our participants receive information about their disease from hospital by the rate of 98,5%. We think this rate should by %100 in today's conditions.

Table 8: Question 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	58	86,6	86,6	86,6
	NO	9	13,4	13,4	100,0
	Total	67	100,0	100,0	

Table 9: Question 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	63	94,0	94,0	94,0
	NO	4	6,0	6,0	100,0
	Total	67	100,0	100,0	

Table 10: Question 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	45	67,2	67,2	67,2
	NO	22	32,8	32,8	100,0
	Total	67	100,0	100,0	

Considering the answers to 2nd question, it was observed that 13,4% of diabetes patients are not informed of presence of diabetes nurse although every diabetes patient should receive an efficient and constant diabetes training. In 3rd question, 94% of patients stated they would feel safe when there are health personnel to receive information from. In 4th question, 67.2% of patients stated they experience lack of motivation, fear and anxiety and feel alone.

Table 11: Question 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	49	73,1	73,1	73,1
	NO	18	26,9	26,9	100,0
	Total	67	100,0	100,0	

Table 12: Question 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	15	22,4	22,4	22,4
	NO	52	77,6	77,6	100,0
	Total	67	100,0	100,0	

Question 5: It was understood that 26.9% of patients do not know what to do in case of increase or decrease of blood sugar, the knowledgeable group about intervention to BS has only a basic level of knowledge and that this knowledge actually is not adequate. Considering the answers to 6th question, we see that 22,4% of patients occasionally lose control of their disease for various reasons.

Table 13: Question 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	53	79,1	79,1	79,1
	NO	14	20,9	20,9	100,0
	Total	67	100,0	100,0	

Table 14: Question 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	49	73,1	73,1	73,1
	NO	18	26,9	26,9	100,0
	Total	67	100,0	100,0	

Table 15: Question 9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	41	61,2	61,2	61,2
	NO	26	38,8	38,8	100,0
	Total	67	100,0	100,0	

Question 7: 79,1% of patients stated that their kinsmen are not interested in diabetes and themselves. It is thought that providing trainings at home will increase the interest and knowledge on disease. Question 8: 73,1% of patient stated that home visits would make them happy and be beneficial. It was understood that patients who gave negative answers replied NO due to various concerns (concern for price, their home is not suitable etc.). As it is understood from 9th question, 61,2% of patients are anxious about their disease.

Table 16: Question 10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	9	13,4	13,4	13,4
	NO	58	86,6	86,6	100,0
	Total	67	100,0	100,0	

Table 17: Question 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	47	70,1	70,1	70,1
	NO	20	29,9	29,9	100,0
	Total	67	100,0	100,0	

Table 18: Question 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	51	76,1	76,1	76,1
	NO	16	23,9	23,9	100,0
	Total	67	100,0	100,0	

Question 10: In the questionnaire, 13,4% of patients stated that they cannot apply to hospital for help even though they have health issues they cannot handle. Patients asserted reasons such as old-age, loneliness and distance from hospital. Considering the answers to 11th question, we observe that 70,1% of patients think their kinsmen can be protected from diabetes through training. 12th question: 76,1% of patients think that a training to be provided by health personnel at patient's own house especially about nutrition will make it easier to live with the disease.

Conclusion

As a result of the questionnaire implemented to patients in Gönen district, the crux of the problem would be determined by home visits to patients who applied to emergency room due to impaired blood sugar and disruptions in patient's adaptation to diabetes process would be established. Problems, solutions and correct practice methods would be evaluated with patient and patient relatives in their own environment; it would be made efforts to overcome the problems that were obtained. Certainly, diabetes requires a process that will last for years. It is unimaginable to provide training only once. It is necessary to minimize complications through repeating and renewed trainings and to take diabetes under control through different and effective approaches. By means of the

questionnaire that was conducted, it was deduced that diabetes patients in Gönen would benefit from such a service and this service would create satisfaction among patients.

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Public Health Problems Following Earthquakes

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Abstract

This study has been conducted in order to determine what kind of public health problems can occur after earthquakes and what kind of possible public health problems can be detected after possible earthquakes that have occurred in the world and in our country and what suggestions can be offered to prevent and solve these public health problems. Immediately after the earthquake the most important public health problems are housing, lack of clean and sufficient drinking and running water, lack of adequate, balanced and healthy nutrition to earthquake victims. Meeting the need for drinking water must be provided with packaged water until temporary or permanent settlement is provided after the earthquakes will ensure that possible diseases are avoided in terms of health. In the first hours, a warm treat to the earthquake victims (soup, tea, etc.) is very important in terms of psychology and is very relaxing, although it does not have much effect on nutrition. Public health studies should be given importance to the public so that they can return to normal life as soon as possible after the earthquakes that cause such negative results. We wish and hope that such disasters do not happen anywhere in the world.

Keywords

Earthquake, Public Health, Health Problems, Housing, Earthquake Consciousness

The planet we live on has been subjected to various earthquakes since its inception and these earthquakes will continue until doomsday. In all time spans from the beginning of human life to today, people live under the threat of earthquakes. The devastating effect of earthquakes has always left deep traces on individuals and societies and has caused great suffering.

Today, natural disasters are increasing quantitatively and qualitatively by the influence of social, economic, political phenomena and urbanization. As a consequence of increasingly crowded cities and the inadequacy of overpopulation and resettlement policies in these cities, distorted and unplanned urbanization has a great influence in increasing the destructive effects of natural disasters, especially earthquakes. Within this irregular urbanization process, the buildings which are not constructed according to the scientific technique and which cannot be controlled have caused and sustained a natural event as a "disaster".

Disasters are natural, technological or human-induced events and events that cause physical, economic and social losses for people, negatively affect communities by stopping or interrupting normal life and human activities, and cannot be traced back to the affected community by using their own facilities and resources (World Disasters Report, 2009);

Natural disasters are natural, technological, or human-caused events that cause physical, economic, and social losses for people, affect communities by destroying or breaking normal life and human activities, and which communities cannot overcome on their own initiative (Ergünay: 1); Earthquakes, avalanches, landslides, floods, droughts, environmental pollution, destruction of forests, desertification etc. threatens as natural phenomena. Earthquake is one of the most common natural disaster threatening human life (Dedeoğlu, Erengin, Pala, 2000: 1);

The earthquake is the sudden release of the elastic deformation energy that accumulates on the fractures called the fault, in other words; Is the wave motion caused by the displacement that occurs as a result of the kinetic energy conversion (Göker, Karaşin, 2015: 2).

There are some variables that are effective in transforming the earthquake into a social disaster. These variables are; the size of the geological and technological disasters, the distance from the central point of origin to the intensive settlement areas, the poverty and the high population increase supporting it, the rapid, unplanned, irregular urbanization and industrialization in the risky regions, the lack of education and knowledge in every area, the destruction of the environment and the forests, the approach of the society to the disaster, and the level of protective and preventive measures it can take before disaster (Şengün, 2007: 2);

Public health is the science and art of prevention of diseases, prolongation of life and the efforts of the society to develop health (Halk Sağlığı Yöneticileri 7. Semineri, 1998),

Many public health problems may arise after earthquakes. Water and food safety and disease prevention may be some problems.

This study has been conducted in order to determine what kind of public health problems can occur after earthquakes and what kind of possible public health problems can be detected after possible earthquakes that have occurred in the world and in our country and what suggestions can be offered to prevent and solve these public health problems.

Public Health Problems That Occur After Earthquakes

Sheltering Problems

Among the public health problems that can be seen immediately after the earthquakes are housing problems. Provision of temporary or permanent accommodation for people who have faced earthquake problems and who are in need will prevent many public health problems that can arise after the earthquake. If accommodation cannot be provided immediately after an earthquake this will lead to many serious problems. (Yesilyaprak, 1/2007);

The main objectives of solving the housing problem of the earthquake survivors are to provide accommodation to them so that they can return to their daily life as soon as possible. It is necessary to provide the needs of earthquake victims in the most appropriate standards in this temporary or permanent housing period. The solution of this problem requires an effective planning and a multidisciplinary team work including the pre-earthquake period.

After the earthquake, survivors continue their lives in the earthquake zone or in designated temporary settlement areas. The health conditions of people exposed to earthquake who are lacking housing should be assessed quickly. In order for this assessment to be made, the health status and nutritional status of the people living in the area should be recorded. Otherwise, it will not be possible to make a healthy assessment of possible problems.

Improper use of the stoves and generators used in the established sheltering centers can cause carbon monoxide (CO) to build up in homes results in poisoning.

Nutrition Problems

Water Sanitation

One of the most important reasons for the problems of public health after the earthquakes is the lack of clean and sufficient drinking and usage water.

Water and sewage lines may be damaged during an earthquake. Sewerage and water lines should be controlled and water sanitation should be provided by super chlorination just in case. However, the most ideal is to use bottled water as drinking water.

Safe drinking water is bottled, boiled or treated water. If your water supply has not been harmed from earthquake damage and is safe for drinking, it should be continued to be used.

If there is not enough safe water available untreated water can be boiled to kill harmful bacteria and parasites. Water should be brought to a rolling boil for 1 minute to kill most organisms. If water cannot be boiled, water can be treated with chlorine tablets, iodine tablets or unscented household chlorine bleach (sycamorecreeknews.net). If chlorine tablets or iodine tablets are used; the directions that come with the tablets should be followed. If household bleach is being used, 1/8 teaspoon of bleach per gallon of water should be added, if the water is clear. For cloudy water, 1/4 teaspoon of bleach per gallon should be added (http://www.gobroomecounty.com). The solution should be mixed well and let to stand for about 30 minutes before using. Treating water with chlorine tablets, iodine tablets or liquid bleach will not kill all of the parasitic organisms. Boiling water is the best way to kill parasitic organisms.(Kirikkaya, Buluş, İmali, Bozkurt, 2011);

The amount of consumed soda, caffeine drinks or alcohol should be limited during this time. These drinks can cause dehydration, which increases the need for drinking water.

Food Safety

Food that is not handled or stored correctly during long power outages can become contaminated and cause life-threatening or serious illness. Freezers should be kept closed to maintain the correct temperature for frozen foods. Dairy products, milk, meats, eggs and leavings should be placed in a cooler surrounded by ice if the outage lasts for more than 4 hours. Dry ice can also be used to keep refrigerators cold. (States News Service, 2010);

Adequate and balanced nutrition

Nutritional needs, which are vital functions, must also be met in earthquake situations so that people can survive. One of the public health problems after the earthquake is nutrition problems. The main goal in preventing these problems is to provide adequate, balanced and healthy nutrition for the earthquake victims.

After the earthquake, it is necessary to make plans and organizations for the nutrition needs of the individuals. Planning should be done taking into account the risk groups of the community (infants, children, pregnant, breastfeeding and elderly people). It is essential that these groups meet adequate and balanced nutrition to meet energy and nutrient requirements daily. By providing adequate and balanced nutrition services after earthquake; the physiological and psychological losses of earthquake will be avoided more quickly.

Nutritional problems after the earthquake can directly or indirectly cause deaths.

The ideal nutrient for 0-6 month group is breast milk even after the earthquake. However, negative psychological effects formed on the earthquake survivor mothers may cause the milk secretion to decrease or to be completely cut off. However, the mother should be encouraged to breastfeed her baby. This is important both for connecting mother to life again and for meeting the baby's psychological and physiological needs. If the mother is lost, injured or her milk is not enough, infants should be fed with foods such as milk, yogurt, pudding, biscuits, eggs, vegetable soups and fresh fruit juice.

Particular attention should be paid to the elderly individuals who should be careful even in their daily nutrition, and they should be fed with the thought that they may have difficulty in meeting their needs in case of an earthquake. The consumption habits of the elderly before the earthquake must be ensured. In addition to these, milk-yogurt should be consumed every day and fresh fruit should be consumed whenever possible. Before consuming the fresh fruit they must be washed thoroughly with clean water.

If the elderly earthquake victim is suffering from a chronic illness, nutrition should be done within the nutritional means specified by the experts.

Psychological problems:

Earthquakes; causes deaths, injuries, illnesses, trauma, deterioration of health, unemployment and economic crises, leading to psychological and mental problems. The level of influence from these problems varies according to the environment, individual characteristics, age and sex. The fact that the government and the society are unprepared to earthquakes, the level of consciousness is low, the inability to take precautions causes great psycho-social problems in the society.

After the earthquake; situations like sadness, grief, reluctance, unhappiness, negative emotions, isolation from life, closure, and disappearance of excitement occur. Earthquake victims may become individuals who have no

expectation of life, showing reluctance even with basic needs such as eating, drinking and sleeping.(Wetzler, Katz, 1989: 23 (1)).

For the solution of psychological problems after earthquakes; it is necessary to start with risk groups first and reduce the anxiety, depression and stress in the individual according to priority order. Bringing together the earthquake victims with their parents and loved ones is a great thing in terms of psychological support.

Hygiene and Contagious Diseases

Secondary effects such as massive displacement of the population after the earthquake, inability to reach healthy drinking water, and disruptions in health care services are the basis for the outbreak of contagious disease. The presence of more crowded living conditions in the established sheltering areas causes especially diseases of digestive and respiratory system and diseases transmitted by contact more frequently.

If the earthquake occurs especially during the winter months, depending on the above mentioned living conditions, airborne infections such as measles, meningococcal meningitis, pertussis, mumps, and acute respiratory tract infections can often lead to outbreaks.

Other diseases that can cause epidemics due to crowded living conditions in narrow spaces are contact-transmitted diseases. Especially diseases such as scabies, flea, and fungus diseases are common problems seen when there is not enough water, and personal hygiene is not ensured.

Environmental Problems

The population gathering in some cities and urbanization, which shows environmental pollution and uncontrolled growth, increases the environmental health problems after earthquakes.

Earthquakes are extraordinary situations that cause great destruction. In such cases, there is need for more than the existing opportunities to intervene to the severe consequences of earthquakes. Public health practices have great importance in eliminating adverse environmental factors and these needs that develop after the earthquake. In order that the society can return to its normal daily life nutrition, accommodation, dressing, health, education and other vital needs of the community should be met. By satisfying these requirements, negative environmental conditions after the earthquake have been eliminated and quality of life will increase.

Environmental pollution caused by earthquakes is the result of environmental damage caused by housing waste, construction wastes, chemical wastes resulting from damages to chemical production plants, medical wastes from hospital damages and harmful microorganisms cause serious environmental pollution, is a significant threat to life.

Problems should be correctly identified during the process of meeting the requirements of earthquake victims' needs such as drinking water, food, housing, heating, clothing, toilet, washing and garbage disposal. Otherwise, there is an antagonism that prepares the ground for the formation of epidemic diseases on a mass scale, which is the starting cause of direct disease, which affects the course of some diseases and the consequences and also spreads some diseases. The environmental problems encountered can cause all the above factors.

Collecting, storing and re-cycling the garbage is a matter of caution. Generally used barrels are turned into containers. A volume of 100 liters is enough for every 50 people.

Social Problems

Earthquakes are the biggest disasters that cause problems in society's normal social life. The majority of the social problems experienced after earthquakes are seen in urban areas where population is intensive.

Millions of people who are directly exposed to the earthquake are trying to survive in desperation in cities. The loss of relatives and friends, unemployment, poverty, financial losses, leads to social problems.

With public health studies; people's social needs should be met as soon as possible and be able to return to the pre-earthquake social environment and continue their daily life. In this context, the provision of employment, libraries, mosques, recreation, sports, psychological support and cultural activities will help the early recovery of life.

Earthquakes cause forced migrations on the society and cause new social problems in migrated places.

Conclusion and Recommendations

As a result, basic public health problems caused by earthquakes are nutrition, psychology, hygiene - infectious diseases, environment and social problems.

Earthquakes cause deaths, injuries, illnesses, traumas, deterioration of health, unemployment and economic crises.

Immediately after the earthquake the most important public health problem is housing. Provision of temporary or permanent accommodation for people who have faced earthquake problems and who are in need will prevent many public health problems that can arise after the earthquake. If accommodation cannot be provided immediately after an earthquake this will lead to many serious problems.

One of the most important causes of public health problems after the earthquakes is the lack of clean and sufficient drinking and running water.

The main target in preventing nutritional problems after an earthquake is to provide adequate, balanced and healthy nutrition to earthquake victims.

The fact that the government and the society are unprepared to earthquakes, the level of consciousness is low; the inability to take precautions causes great psycho-social problems in the society.

Earthquake victims; may become individuals who are reluctant to even basic needs such as eating, drinking and sleeping and without any expectation of life.

Negative conditions after earthquake causes especially diseases of digestive and respiratory system and diseases transmitted by contact more frequently.

In the light of these results, the following suggestions can be made;

- ✓ Damage should be detected immediately after the earthquake and the living standards should be established as before the earthquake.
- ✓ The settlement areas and the buildings to be built must be in harmony with the traditions and cultures of the community. Consideration should be given to infrastructure, domestic waste, chemical waste of the residential areas and environmental health should be given importance.
- ✓ Support and organizational units should be set up for provision and food distribution immediately after the earthquake.

- ✓ Meeting the need for drinking water must be provided with packaged water until temporary or permanent settlement is provided after the earthquakes will ensure that possible diseases are avoided in terms of health.
- ✓ In the first hours, a warm treat to the earthquake victims (soup, tea, etc.) is very important in terms of psychology and is very relaxing, although it does not have much effect on nutrition.
- ✓ Mobile or permanent kitchens/food distribution units can be installed at central points.
- ✓ Field hospitals should be established for urgent care and treatment without losing time for hospitals, health centers, destroyed in earthquake areas.
- ✓ Observation of technological devices emitting radiation in field hospitals should be observed.
- ✓ Earthquake consciousness should be given to all the people of the society in order to keep the damage caused by the earthquakes at a minimum level and to fasten the wounds.
- ✓ The society must be ready for an earthquake before earthquake takes place.
- ✓ Public health studies should be given importance to the public so that they can return to normal life as soon as possible after the earthquakes that cause such negative results.
- ✓ The state needs to improve existing public health work and provide support to these units, which are vital for meeting the needs of the community, before the earthquake.
- ✓ We wish and hope that such disasters do not happen anywhere in the world. However, again, it must be realized that our country is on earthquake belt and generations should be educated with this consciousness.

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Physicians and Nurses Motivation and Organizational Commitment in Private and Public Owned Secondary Hospital in Istanbul

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Abstract

This research aims motivational and organizational commitment factors of physician and nurses of public and private hospitals. The data collected from Küçükçekmece-Beylikdüzü and Tuzla province of Istanbul. Statistical analyses were performed between nurses and physicians for detecting degree of motivation and organizational commitment. The results show that differences exist for certain motivational factors and organizational commitment factors when health care staffs were differentiated by private confronting public in hospitals. The study finalizes that management association and proposal for later consideration related to operational hospital systems, approach, and plan of action that serve to hospital staffs.

Keywords:

Motivation, organizational commitment, commissioning, health, hospital

New health care transition system in Turkey has been applied to health care since 2003 for funding health care. Health care expenditure is a growing problem in most developing states, due to technological progress, unemployment rate and an aging population since 1961. In 2003, the Turkish government released "Major health care reforms in order to make healthcare services easy, accessible, and high quality and efficient for citizens. The objective of this study is to investigate the impact of health care transition in Turkish physicians and nurses such as satisfaction and motivation. Motivation and organizational commitment correlate with effective management strategies that can be developed so as to create motivational and organizational commitment needs associated with nurses and physicians.

Distinction in job factors between public and private health care sector is important. Physicians and nurses in public hospital, where job security was common, value recognition factors like: "well done," and "being involved," and, "interesting work." (Kovach, 1995). While in private health care sector nurses and physicians are strongly driven by the concept that they should be paid because they deserve (Weaver, 1988). In accordance with Weaver (1988), raising salary will not produce the same effect as the motivation owing to the fact that it is not the same as being paid for what the person are valued. Weaver et al (1988) argues that if all performance paid by physicians' salary were connected to their output, the health care industry may be able to solve motivation problems. Proofs

showed that motivational preferences also differed by clinical department like lying in services, operation room, intensive care due to professionalism (Curtis et al. 2009; Lambrou et al 2010, Lyons et al. 2006).

Rosenberg and Trevino (2003) indicated that a health care institution must have good relationship with physician and nurses in order to improve the work motivation and organizational commitment. So, health care organizational identification affects widely varying organizational situation and organizational work motivation and performance.

Instrumentation

Data were collected by a questionnaire with socio demographic questions like gender, age, profession, marital status, twelve motivation questions based on a scale developed by Kovach (1995), and nine organizational commitment questions based on the work of Mowday et al. (1979). Both dependent measures (motivation and organizational commitment factors) were set to a 5-point Likert scale ranging from 1 to 5 representing from very unimportant to very important respectively. The Cronbach Alpha measurement for the motivational scale was 0.89 thus indicating strong rating reliability among the participants.

Research Methodology

The hypothesis of this study is to determine the presence of differences between private and public owned hospital of physicians and nurses.

H_1: *There is no significant difference between private and publicly owned hospital staff concerning motivational factors.*

H_2: *There is no significant difference between private and publicly owned hospital staff concerning organizational commitment factors.*

This study employs a stratified random sampling process according profession, total 908 physicians and nurses are chosen. 98 % of the health staff that means 412 physician and 480 nurses were chosen randomly from private and public hospital with 400-450 beds in Tuzla and Beylikdüzü of Istanbul province. 98 % or more of questions is answered by health care staff.

Results

892 questionnaires were administered to stratified randomly chosen nurses (480) and physicians (412) according to hospitals. Female percentage (62.2%) was high. The majority of the respondents (51.1%) were age 45 and younger, with another big segment between the ages of 46–65 at (48.9%). While testing hypothesis it is found that there is significant difference between mean ratings for physicians versus nurses on total motivational points ($p = .008$), promotion or career development ($p = .004$). In particular, job security ($p = .027$), interesting work ($p = .015$), advancement and career development ($p = .002$), and good wages ($p = .005$), Supervisor loyalty to employees ($p = .003$). Shown in Table 1.

Scale	Profession MEAN	Sig
Good working conditions	Nurse (4.76)	0.001 ; t=8.91
	Physician (5.71)	
Job security	Nurse (3.52)	0.027 ; t=10.54
	Physician (4.51)	
Supervisor loyalty to employees	Nurse (4.60)	0.003; t=7.50
	Physician (3.89)	
Public felicitation for a well done job	Nurse (3.16)	0.001; t=1.72
	Physician (4.11)	
Gratitude for a job well done	Nurse (3.16)	0.001 ; t=6.20
	Physician (4.21)	
Good wages	Nurse (4.10)	0.005 ; t=10.59
	Physician (4.01)	
Promotion or career development	Nurse (4.16)	0.002 ; t=9.34
	Physician (4.81)	
Interesting work	Nurse (4.06)	0.015 ; t=12.11
	Physician (4.71)	
A feeling of being involved	Nurse (4.12)	0.032 ;t=13.45
	Physician (4.51)	
Tactful discipline	Nurse (4.16)	0.001 ; t=2.45
	Physician (4.00)	
Financial Motivation for a job well done	Nurse (4.60)	0.050 ; t=7.11
	Physician (4.91)	

Manager's help with personal problems	Nurse (4.36)	0.001 ; t=12.12
	Physician (4.61)	
Public congratulation for a job well done	Nurse (3.36)	0.021 ; t=3.87
	Physician (4.71)	

Table1. Physician and Nurse Motivation

An interesting record is that the mean ratings were higher for females than of their male partner thus suggesting that there are gender differences present which in turn specify that health care managers can facilitate nurse's performance and satisfaction by focusing on gender related motivational factors that serve to attract and enhance gender performance. This observation hold out past the present findings but it does shed light on the possibility that attending to differing motivational factors can make a difference in worker and organizational performance which would agree with previous studies. There is no difference between physician and nurses on the organizational devotions factors. There is a conformance variance between physicians and nurses. Studies' statistics have already shown connection between organizational commitment and nurses and physicians. Health managers can therefore meld and change their systems, practices, and plans to increase worker performance and organizational output. General, the general agreement expressed indicates that this particular organization is very successful at communicating their goals, goal, and values out to their workforce and is also capable at work their mission, goals, and values across staff shown in table2.

Scale	Profession MEAN	Sig
I know what is expected of me at my health care service.	Nurse (4.60) Physician (4.25)	0.09; t=13.04
I am able to do my job what I do best every day.	Nurse (3.76) Physician (4.05)	0.01 ; t=1.08
I really care about the future of this organization.	Nurse (2.93) Physician (3.95)	0.02 ; t=3.87
I am proud to tell others that I am part of this health care business	Nurse (2.70) Physician(2.88)	0.00; t=5.12
I find that my values and health care organization's values are very similar.	Nurse (3.70) Physician (2.79)	0.02; t=5.15
I am extremely glad to work for over others.	Nurse (3.81) Physician (2.89)	0.001; t=2.63
I can do my performance very well in this institution	Nurse (3.31) Physician (3.47)	0.01; t=2.03
This health organisation is the best of them.	Nurse (3.73) Physician (3.56)	0.02 ; t=7.55
I would accept almost any job in order to work in this hospital/ health organisation.	Nurse (3.79) Physician (3.33)	0.03; t=6.77

Table 2: Organizational Commitment via Nurses and Physicians

Studies' statistics have already shown connection between organizational commitment and nurses and physicians. Health managers may shape and change their systems, practices, and policies to enhance nurses and physicians performance and organizational output. Overall, the general consensus expressed define that this particular organization is extremely essential at get into touch their aim, function, and benefit out to their staff and is also competent at educating their mission, goals, and ethics across worker.

Conclusion

Motivation of physicians and nurses is crucial in the management of health care institutions. Absence of nurse and physician motivation may cause organizational problems, memory, morale and creativity. Certainly, public hospital action management is unknown with these human resource issues, however, many public hospital choose to accept these matter as part of the trade. The results of this study provide a synopsis of the labourer motivation and organizational responsibility of nurse. Generally, there was general agreement with the respondents when

distinguish by nurses situation or physician thus mark the existence of an organizational environment that focuses on systems, method, and polices that support health care practice promise.

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Misusing of Emergency Health Services and Freeloading Problem for Individuals Who Wants to Benefit from These Services

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Abstract

Being free of emergency health services pave the way for misusing and cause the increase of public expenditure through triggering the maximizing benefit which individuals' desire. On top of increasing spending items of public expenditure, the main problem that is caused by misusing is increasing workload of 112 Emergency Ambulances by policlinic patients who don't need to emergency health aid in context of their vital function. Increased workload depending on misusing of emergency health services, if not intervened, may cause waste of time in context of reaching possible fatal cases in first 10 or 30 minutes. It is most likely to be unfavorable reflections to those who need to emergency care when they really need due to misusing. Therefore, becoming more effective the operability of emergency care which is a risky public health care through preventing misuses is most important issue which must be handled.

Keywords:
112 Emergency Ambulance, Misusing

Introduction

Because of 112 Emergency Health Services are free for those who benefit, free-riding problem occurs in the services. The costs of these services are financed by transfer expenditures of state. In areas where public services are for free, that each individual of society behave similarly to maximize their benefits wears off the public good. It is described that damaging the public good as a result of individuals' behavirous in order to maximize without considering full public good and status of services is tragedy of stakeholders. For example, the parks of municipality serves for all people of society. Noone cannot be debarred from these services (non-exclusion cost). As result of non-exclusion cost, banks and swings may be broken; public goods may get damages. The damage which as a result of the efforts for maximizing their benefits is one of the stunning examples of stakeholders' tragedy.

Although 112 Emergency Health Services are not completely public good, the efforts of individuals' for maximizing their benefits and free-riding problem cause to wears off the emergency health services in context of those who really need it. This serious case is coming out in emergency health services retards the utilizing of real

peoples who are need to receive it (Heart Attacks, Trauma, Bullets, Traffic Accident). Non-exclusion from emergency health services and not paying for these services increase the demand for 112 Emergency Health Services. This instance forms most likely a basis for coming about the damages which its compensations are hard or impossible (Death, Loss of Organ, Paralysis etc.). Ensuring supply and demand equilibrium in 112 Emergency Health Services which is in completely public goods is pretty hard as a result of the non-exclusion cost. Supply and demand equilibrium in 112 Emergency Health Services could not possible generally because of the fact that emergency health services is not static, it is dynamic. For example, mean of emergency cases could be lower when compared with previous or next month. Contrary, mean of emergency cases could be also higher when compared with previous or next month. So, emergency cases might break out, multiple-vehicle collision or natural disaster might take place in a one hour or minute. It is not estimated and planned how many emergency case would happen. Here these reasons elicit that emergency health services have a dynamic nature. It requires that fully-equipped emergency ambulances must get ready for emergency cases (Heart Attack, Respiratory Distress, Disaster etc.) which are current or future by considering this dynamic nature of emergency health services.

Prevention of Misusing in 112 Emergency Health Services

To provide an efficient emergency health services many studies on preventing non-exclusion cost and free-riding problem in 112 Emergency Health Services and for sustainability must be held. Health Ministry of Turkey issued a circular letter (number B.10.0.THG.0.83.00.03- 211.99- 01.01/3931 in 27.01.2012) named “Green Field Application in Emergency Health Services” .According to this circular letter; policlinic patients who are in stable condition in context of health and have ordinary health problems like dull ache, cuttings which don’t requires any suture and patients who have psychological disorders and chronic diseases but whose general health condition is normal or stable are in a different position in emergenct department. If the physician evaluates them as a not-emergency patient after examination, coded 520.021 “Green Field Examination” process is conducted to these patients. The process of coding is conducted after completing all process of patient in emergency serve. In the circumstances, the patient buys the prescribed medicine from medicine store and pays same co-payment like the ordinary policlinic patients. If the patient is evaluated as an emergency patient, these medicines can be bought from medicine store without co-payment. It is aimed to prevent unnecessary applications to emergency services and to providd these services in quality and in time for those who really need.

Green Field Application in Health Services would prevent unnecessary cases to reach in context of 112 Emergency Health Services majorly. It may not possible to be evaluated the patient’s health condition on the spot. Although the patient doesn’t have emergency status, due to relatives’ and social pressure, some situations required for transporting the patient to hospital emergency service can realize. After completing these patients (who are not in emergency condition), reporting that transport these patients by emergency ambulance and imposing an obligation of transport fee for them to buy prescribed medicine from pharmacy would prevent misusing 112 Emergency Health Services majorly. Taking precaution as mentioned would decrease free-riding problem and prevent misusing the public goods and, would change in context of retrenching the public expense items for emergency health services positively.

Results

Application of green field in Emergency Health Services before Hospital would be beneficial in context of preventing unnecessary stacks on hospital areas and of misusing 112 Emergency Ambulances. Through this

application emergency health services can be provided in right time for those who need it. Obtaining satisfactory results by ensuring time management properly would increase the quality of emergency health services which are known as risky public services. Therefore, the time to reach for emergency cases while would shorten and would also save up by decreasing the expense items for health system.

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Approach to Material Evidences and Protection of Material Evidences in Emergency Healthcare Services

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Abstract

One of most frequently encountered case in providing emergency health services before hospitalization is judicial cases. Approach to judicial cases are quietly important in context of protection of material evidences. 112 Emergency Health Staff take place on scene among arriving team in a short time when the case occurs. By law 112 Emergency Health, teams are responsible for protection of evidences while they furnish medical intervention to those who are ill/injured or died. Although priority of emergency health staff is to provide emergency medical interventions. They are also responsible for gathering, protecting and saving of the evidence in the scene. The evidence is good to solve the controversy, to prove the act of criminal, to reveal the details of criminal, to determine the individuals related criminal. Thus, it is very important in context of judicial cases. Although the attentive studies which are helded by emergency health staff while protecting material evidences would accelerate the judicial process in context of revealing that concrete case, damaging the material evidence of during medical intervention would make judicial process hard. In this regard, arranging course on the approach to judicial cases for active health staff would contribute to reveal.

Keywords:

Evidence, Judicial Case, 112 Emergency Aid

Introduction

The point of interest of Emergency Health Services before Hospitalization is related with all kinds of life- threating cases (wounding, downfall, traffic accident etc.) where occurs out of hospital. The most important part of cases comprises of life- theating judicial cases. Judicial case can be described as woundings which coccurs as a result of intentionally, unwary or careless behaviors to someone. 112 Emergency Health Staff may provide medical intervention to judicial cases like suicide, sexual assault, family violence, abuse, wounding, accidents, using

alcohol, drug addiction, food and medicine poisoning, criminal abortion, malpractices etc. 112 Emergency teams are the first contacts for the patients, their relatives and eyewitnesses and who see the material evidences. Number of real judicial cases is not known because of keeping secret by not reporting to police. Because of fact that 112 Emergency Health Staff provides their services to patients by force of nature of the medical services, they may play an important role in context of revealing the judicial case. The obligation of reporting the crime is underlined in Turkish Penal Code. According to 280. article of Turkish Criminal Code, the health worker who does not report to competent authority or retards though encountering glimpse related the crime is punished with imprisonment up to one year. As can be understood via legal obligation, it is necessary to gather, protect, save and register the evidences. The duty of health staff who provide emergency care is not involving to different specialty areas (polis, solicitor, forensic expert), but ensuring coordination between different institutions and researching by using its specialty knowledge. Otherwise, while judicial review may be beclouded, the court may also miscall due to the laxity or careless of health staff. In this respect, it must be aimed that 112 Emergency Health Staff consist of who have experience and knowledge for judicial cases. Judicial evaluation must be known to result in a short time. Elements of judicial evaluation are to take medical history, psychical examination, to gather, describe, protect, register of evidence and to manage crisis in the scene.

Scene Management in Judicial Cases

The securities of scene and health staff are fundamental component in emergency situation. Investigation of judicial case and protection of material evidences can be discussed after ensuring security of them. Otherwise, it is likely to affect judicial and health dimensions of the services. The health staff's experiences and knowledges on scene management is quietly effective in evaluating judicial case. When compared with judicial cases, attitudes like prejudgement and the behaviors like plaguesome looking would be elements which make heavy weather of it. The attitudes and behaviors towards the case can contribute to scene management positively or negatively. Controlling the emotions, objective approach to judicial case, not intermixing professionalism and emotion in medical intervention are expected attitudes from emergency health staff. Instead of being quizzical, derogatory, othering communication type, being sincere, understanding and helpful attitudes and behavior effects in scene management and gathering evidences positively. Individuals may not want to share their special information without trusting health staff and good communication. Effective communication depends on trust and respect. While explanation of all process which would implicate laconically for individuals would facilitate all works which are undertaken by health staff, it also would enhance sense of trust of individuals. Speaking to the individual by empathizing and listing are pretty important. Fear, anxiety, shame, depression, suicide attempt, self-recrimination and behavior disorders, self-harm, using alcohol, substance-use disorders of the individual must be observed by considering the mood, protection, record, not changing the place of material evidences related the crime, generating secure way to scene, taking precaution for secondary risks are expected behaviors of health staff in judicial cases which are resulted in death. Emergency health staff may encounter legal sanctions if they cause to delete or secret the evidences consciously or unconsciously during intervention to the judicial case. In this regard, being more disciplined and painstaking is quietly important in context of security of material evidences. The importance of recording of judicial evidences have been underlined in regulations. According to 15. article of The Ambulance and Emergency Health Vehicles with Ambulance Services Regulation: "Ambulance and emergency care technician is responsible for medical interventions practiced in emergency health vehicles which have not any

physician, recording medical information concerning patients regularly, appending all medical interventions to patient file". Correct recording is as important as proper invention to judicial cases.

Taking Medical History and Reporting to Legal Authorities in Judicial Case

While taking medical history in addition to general disease history as;

What happened?

Where happened?

The answers are seeked for these questions

When happened?

How happened?

Good communication and giving trust to patient would arise positive results in context of reaching correct information while listened patient complaint and given information related to case. Verbal expression of patient must be recorded without changing by no means. Experienced, trained and informed health worker which would take medical history will facilitate all process in context of protection of material evidences. Selecting clear words and asking questions which can be answered by patient easily would be useful in revealing of the judicial case. If the patient is unconscious or lose the ability of speaking, it must be tried to take information about concrete case from eyewitness in the scene. It should be communicated with police force and careful about obtaining correct information while fulfilling these acts. If the patient's contradictory expressions and suspicious behaviors are observed by emergency health staff and he/she rejects treatment or transplantation in order to whitewash the judicial case, it should be reported to legal authorities. In addition to medical intervention to judicial cases, many important process steps like protection of material evidence, reporting to legal authorities and recording have been given below:

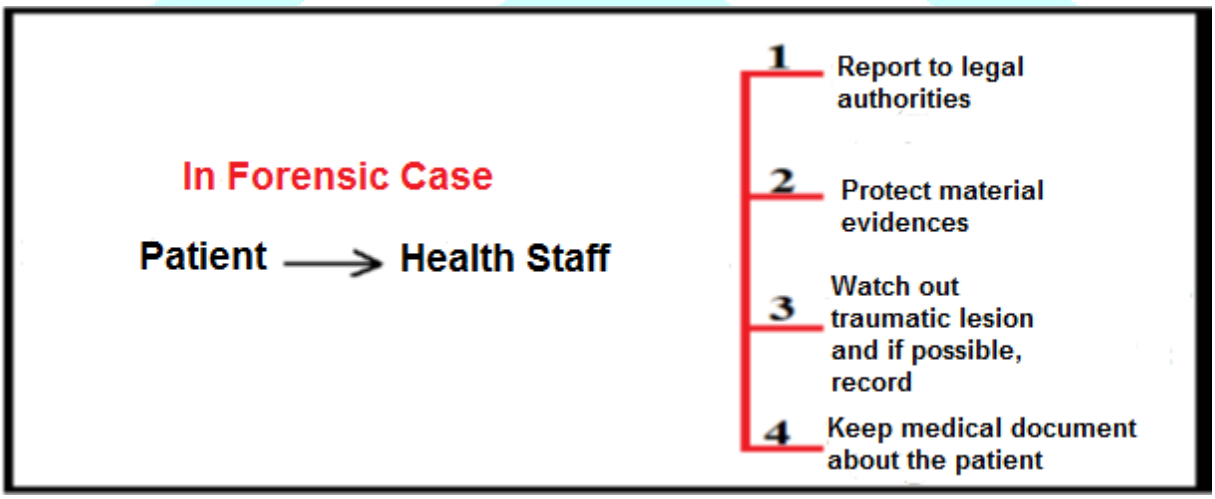

Figure 1.2: Approach to the patient in forensic case

Examination and Evaluation in Judicial Case

It requires that physical examination of suspect and victim must be realized in order to check any trace out and to reach evidence related to the crime. But, physical examination before hospitalization cannot be realized in the scene to reveal the crime. One of the principal responsibilities of health staff is to protect the evidence which is found on the patient until physical examination of suspect and victim is realized. If necessary, it must be hindered to changing clothes, washing face, having bath, relieving oneself of suspect or victim. Although gathering evidences and realized examination for taking tissue sample which would reach to the doer are issues related to forensic science, protection of these evidences is related to emergency health services before hospitalization. Therefore, conducted studies within coordination between different institutions would facilitate the solution of judicial cases.

Gathering Evidences in Emergency before Hospitalization

Everything which is used by the suspect for crime has evidential value. It is so important to benefit from any type of judicial evidences in context of illumination of concrete case. Type of judicial evidences is also;

- Psychical Evidences (guns and fireless weapons)
- Biological Evidences (blood, clay, saliva, nasal discharge, semen, bran, skin rash, nail, urine etc.)
- Chemical Evidences (soil sample, gunshot residue, bottles shards, hype etc.)
- Trace Evidences (fingerprint, track, footprint, tooth trace etc.) as classified.

Emergency health services' staff must put personal protective clothes on (gloves, bone, glasses, uniform etc.) during intervention to judicial cases for protection of the evidences. Using one way to entrance to the scene by generating security path would prevent to damage the evidences. It must be moved carefully on a determined route to not throw about evidences. Except medical equipment which is on patient, it must not to be left any material and to be taken from the scene. At the same time, emergency health staff must not eat and drink something and not move any material (pull sofa, pillow, plate, table, cupboard, chair etc.). If moving these materials is compulsory, the changing must be done as to be enough for medical intervention. Also, photographs must be taken before changing and must be reported to police.

It is taken in consideration that pathological sampling and medical examination for the suspect must be done to obtain any evidence. For example, the changing clothes, having bath, if it possible relieving oneself of the victim who is sexually abused must be prevented.

Although gathering evidence is not first responsibility of health staff, it is undeniable realty that they play significant role because they can be first-rate witness in context of revealing the case. According to 278. Article of Turkish Criminal Code, health staff which arrived to the scene firstly must report the judicial case to legal authorities (polis, military police). In addition, the materials which can be evidence must be protected painstakingly by health staff. Otherwise according to 281. Article of Turkish Penal Code, it can be matter of the crime of concealing the evidence for health staff. Equipment which is used for medical intervention must be left onto patient and must be dispatched like that in judicial cases which are result in death. Invasive procedures realized during

medical intervention must be marked on patient. If probable acts to conceal the evidences take place, judicial polices are responsible for preventing it as required by law. According to 168 Article of Turkish Penal Code, the judicial police preclude those who hinder the process of crime scene investigation until the end of it. Emergency health staff must not forget that there are extra tasks in addition to their priority responsibilities and must work carefully and painstakingly during medical intervention.

Results

In accordance with the nature of the occupation of 112 Emergency, health staff encounters judicial cases before hospitalization. Although it is expected condition of 112 Emergency Health Staff encounters these cases, discernment of these cases from other cases and protection of evidences by health staff are different job for expert. All of the process can be possible with having theoretical knowledge, experience, comprehension, ability for it. For this, it necessitates to be added, primarily into paramedic curriculum, the course of "Judicial Paramedic". In this way, the candidate of paramedic pupils taking course about judicial cases and reinforcing with practice would develop professional behaviors when they encounter it after graduation. It would be useful that the managers employing health staff for emergency health services before hospitalization have an attitude about supporting attendance of organized training course related to judicial cases in context of the service output. In this way, ensuring coordination between security forces and health staff would contribute to run the process fast and correctly.

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