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RISK MANAGEMENT IN HEALT INSTITUTION: RISK ANALYSIS OF A PUBLIC HOSPITAL[i]

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ABSTRACT

Aim of Study: Hospitals are health institutions encompassing many risk factors within its body. This study has been carried out to identify hazards and risks that may arise during service presentation in health institutions bearing high-risk elements and determine points to improve.

Method of Study: Interview technique has been used as data collection method in the study. In this regard, face-to-face interviews have been performed with 15 managers authorized in Risk Management in a public hospital. Acquired data have been transferred into Risk matrices, thereby obtaining results.

Obtained Results: It has been concluded that sharp object accidents and infection hazard in Operating room**,** Sterilization and Morgue units are most important (unacceptable risk) risk components. Second important risk groups have been detected to be medical waste risk of operating room workers, violence risk in Emergency service and intensive care unit, infection in clinics and security workers, violence and transmission risk.

1.INTRODUCTION

"Risk" subject has always been a notion existing all dimensions of life as well as operations of organizations. Risk and Risk Management are subjects that require attention and worth studying in an organization that is complex and that performs protection and treatment functions for human life, i.e. an hospital. Health services aim treating and not harming in its base. Equipment and materials bear various inherent risks endangering health workers and patients. Aim of risk management studies is predetermining risk to arise, reducing uncertainties-risks, protecting health institutions from risks and ensuring patient and worker safety.

On the other hand, improvements in health technologies and diversity of disease-causing factors have rendered the subject of patient and worker safety a notion of which importance level is constantly rising. In this context, this study has been performed to determine risks that may occur in a public hospital.

Viewed from this point, answers will be sought for the following question: What are the risks that may affect patients, health workers and visitors during a health service presentation?

1.1. Risk:

A probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action(www.businessdictionary.com). According to another definition Risk; Realization possibility of a given hazard and related results (wikipedia.org).

1.2.Risk Management

Risk management is the whole proses starting with identification of risks and encompassing assessing the risks, determining moves to take against those risks and applying those determined activities, monitoring these activities and re-evaluating the results (Güleç and Gökmen, 2009: 172). Also, risk management means management which enables data-based decision making in a direction to reduce effect of hazards that may occur by assessing the risks systematically (Regulations Regarding Internal Auditor Working Method and Principles, 2006; Article 4). When studies on risk management matter are examined (Konuralp, 1997; Candan, 2008; Bolgün

and Akçay, 2009; Tansöker, 2008), it is seen that there are more risk management implementations and studies in particularly banking sector compared to other sectors. When this situation is handled in terms of health sector, it is seen that regulations pertaining to risk management applications have not improved sufficiently as in banking sector.

2. MATERIAL AND METHODS

3.1.Population and Sample (Scope of Study)

Population of study consists of manager, occupational health expert and unit supervisors (operating room, emergency service, sterilization, administrative unit, pharmacy, intensive care, patient admissions unit, kitchen and cafeteria, laboratory, morgue, laboratory, cleaning, technical unit, security unit, service unit supervisors unit supervisors) serving in Konya Ataşehir Public Hospital. In this context, interviews have been carried out with 15 responsible managers.

3.2. Data Collection Tools and Method

Within the scope of the study, unit-based risk assessment analysis form was filled by using interview method with related supervisors about 12 most commonly encountered risk factors (**radiation, noise, hazardous substances, infection, sharp object accidents, allergen substances, ergonomics, violence, transmission, reparation accidents, mobbing and medical waste risks)** by screening related sources. Participants were asked to grade possibility and violence points to encountered risks. As a result of acquired points, (Risk Score = Possibility X Effect (Violence) **Risk Point** was calculated. Points given to risk possibility and risk violence are shown in detail in the following tables.

Table 1. Risk Possibility Score Determination Table

Quantitative Value	Qualitative Value	Possibility of Incidence
1	VERY RARE	Not seen in the last 2-10 years
2	RARE	Seen at least once in the last 1 year
3	SOMETIMES	Seen in the last 1 year
4	OFTEN	Seen in the last 3 months
5	VERY OFTEN	Seen in the last 1 month

Table 2. Risk Violence Score Determination Table

Quantitative Value	Qualitative Value	Effect/ Violence Level
1	Very mild	No working hour loss, not requiring first aid
2	Mild	No working day loss, not having permanent effect, requiring ambulatory, first aid treatment
3	Moderate	Mild injury, requiring inpatient treatment
4	Serious	Serious injury, long lasting treatment, occupational disease
5	Very serious	Death, permanent disability

Table 3. Risk Points Assessment Table

POSSIBILITY (PROBABILITY)	**VIOLENCE GRADING**				
	VERY SERIOUS 5	**SERIOUS 4**	**MODERATE 3**	**MILD 2**	**VERY MILD 1**
VERY HIGH 5	25	20	15	10	5
HIGH 4	20	16	12	8	4
MEDIUM 3	15	12	9	6	3
LITTLE 2	10	8	6	4	2
VERY LITTLE 1	5	4	3	2	1

FINDINGS

Risk point and risk types of 12 risk factors most commonly encountered in health institutions prepared by interviewing with 15 responsible managers are handled in detail in the following table.

Table 4. Obtained Findings

RİSK PUANI	RİSK SEVİYESİ	RİSK TÜRÜ
1	Unimportant Risks	- violence risk in sterilization - violence risk in operating room - mobbing risk in emergency service - radiation risk in sterilization - hazardous substance, infection, allergen substance, ergonomics, violence, reparation accidents, medical waste and mobbing risk in administrative unit - pharmacy workers - radiation, infection, sharp object accidents, ergonomics, reparation, medical waste risk in intensive care unit - patient admissions unit radiation, ergonomics, reparation accidents, mobbing risk - radiation, reparation accidents in laboratory - radiation, ergonomics, transmission, reparation accidents, medical waste risk in morgue - radiation, allergen substance, ergonomics, transmission risk of cleaning workers - noise sharp object accidents, ergonomics, violence, transmission risk of technical unit - sharp object accidents, allergen substances, transmission, medical waste, mobbing risk of security units - radiation, allergen substance, ergonomics risk of

		service workers
2	Acceptable Risks	Reparation accident of operation room workers Radiation risk of administrative unit workers Hazardous substance risk in intensive care unit Sharp object accidents in patient admissions unit Ergonomics, transmission risk in laboratory Noise risk in morgue - noise, hazardous substance risk of cleaning workers - reparation accidents, medical waste risk of technical unit workers
3	Acceptable Risks	- noise, transmission risk of administrative unit workers - sharp object accidents, violence, mobbing risk of laboratory workers - reparation accidents in service workers
4	Acceptable Risks	- allergen substance risk of operating room workers - radiation, hazardous substance, allergen substance, reparation accidents and medical waste risk in emergency service. Mobbing risk in sterilization
5	Acceptable Risks	- noise, hazardous substance, allergen substance, medical waste risk of laboratory workers - transmission, medical waste risk in laboratory
6	Acceptable Risks	- ergonomics risk of operating room workers - violence risk of patient admissions unit workers - violence risk of morgue workers - noise risk of security workers - sharp object accidents in administrative unit
8	Moderate Risks	- infection risk of technical unit workers - ergonomics risk of security unit
9	Moderate Risks	- noise, infection risk of operating room workers - infection, ergonomics, transmission risk in emergency service.

		- noise, mobbing risk in intensive care unit - hazardous substance, allergen substance risk of patient admissions unit workers - allergen substance risk of morgue workers
10	Moderate Risks	- infection substance risk of technical unit workers - radiation, hazardous substance, mobbing risk of laboratory workers - infection risk of laboratory workers
12	Moderate Risks	- transmission risk of operating room workers - noise risk in emergency service - ergonomics risk in sterilization - radiation risk of security unit workers
15	İmportant Risks	- radiation risk of operating room workers - noise, allergen substance and violence risk of laboratory workers
16	İmportant Risks	- hazardous substance risk of operating room workers - reparation accidents in sterilization - sharp object accidents in emergency service - violence risk of security unit workers
20	İmportant Risks	- medical waste risk of operating room workers - violence risk in emergency service - noise risk in sterilization - violence risk in intensive care unit - infection, violence, transmission risk in service - infection risk of security unit workers
25	Unacceptable risks	- sharp object accidents and mobbing risk of operating room workers - hazardous substances, infection, sharp object accidents, medical waste risk in sterilization - infection in morgue workers

In addition to findings above, 11 participants answered the question “Is there a risk committee in your hospital?” as **yes** while 4 participants stated **no**. 5 participants said yes while 10 participants said no to the question whether risk committees of their hospital give education. There were 4 people who stated that there is not anyone to know what to do and a person to direct in case of a risky situation.

CONCLUSION

The following results were obtained from this study performed with 15 responsible people for determining 12 different risk elements in a public hospital:

- It has been concluded that sharp object accidents and infection hazard are most important (unacceptable risk) risk elements in operating room, sterilization and morgue units.
- It has been detected that second important risk elements are medical waste, hazardous substance and radiation risk of operating room workers, violence risk, sharp object risk of emergency service and intensive care unit, infection, violence and transmission risk in clinics and security workers.
- **Unimportant risks are ranked as follows**: violence risk in sterilization and operating room, radiation risk in sterilization, hazardous substance, infection, allergen substance, ergonomics, violence, reparation accidents, medical waste and mobbing risk in administrative unit, radiation, infection, sharp object accidents, ergonomics, reparation, medical waste risk of pharmacy workers and in intensive care unit, Patient admissions unit radiation, ergonomics, reparation accidents, mobbing risk.

Generally, it has been concluded that particularly operating room, emergency service and intensive care units are risky areas, there are practices about Risk Management in the institution, however, these practices are not sufficient and systematic.

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[i] This paper has been presented as an oral presentation at International Symposium Occupational Health and Safety (SESAM) in Romania in October 2015 .