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Özel Hastanelerde Çalışan Üst Düzey Sağlık Yöneticilerinin Sağlık Teknoloji Değerlendirmesine İlişkin Görüşlerinin İncelenmesi

Examination of Opinions of the Senior Health Managers Working in Private Hospitals on Health Technology Assessment

Mehmet Akif Erişen[1], Fatma Özlem Yılmaz[2]

[1]Res. Assist., Department of Health Management, Health Science Faculty, Selçuk University, Konya, Turkey.
[2] Assist. Prof., Department of Health Management, Health Science Faculty, Selçuk University, Konya, Turkey.

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Öz

Amaç: Bu çalışmada Konya il merkezindeki özel hastanelerde çalışan sağlık yöneticilerinin sağlık teknolojisi değerlendirmesi ve uygulamaları hakkındaki görüş ve düşüncelerinin değerlendirilmesi amaçlanmıştır.
Yöntem: Araştırmada nitel araştırma yöntemlerinden yararlanılmış olup, olgubilim deseni kullanılmıştır. Araştırma, Konya il merkezindeki özel hastanelerde çalışan ve araştırmaya katılmayı kabul eden sağlık yöneticileri ile yüz yüze görüşme yöntemi kullanılarak gerçekleştirilmiştir. Araştırmada veri toplama aracı olarak yarı yapılandırılmış görüşme formu kullanılmıştır.
Bulgular: Analiz sonucunda sağlık teknolojileri, sağlık teknoloji değerlendirmesi, Türkiye'deki sağlık teknoloji değerlendirmesi uygulamaları, özel hastanelerin sağlık teknoloji değerlendirmesine yaklaşımı, sağlık teknoloji değerlendirmesi biriminin kurulması, katılımcıların hastanelerindeki sağlık teknoloji değerlendirmesi uygulamaları ve sağlık teknoloji değerlendirmesi uygulamalarının gelecekteki yeri başlıkları altında alt temalar oluşturulmuştur ve oluşturulan temalar ile ilgili bulgular yorumlanmıştır.
Sonuç: Yöneticiler sağlık teknoloji değerlendirmesi uygulamaları hakkında çeşitli bilgilere sahip olmakla birlikte, bu durumun sınırlı düzeyde olduğu görülmüştür. Bu bakımdan, sağlık teknoloji değerlendirmesi uygulamalarını ve bu konudaki farkındalığı artırmak için sağlık teknoloji değerlendirmesi hakkında sağlık yöneticilerine genel bir eğitim verilmesinin yararlı olacağı düşünülmektedir.

Anahtar Kelimeler: Sağlık teknoloji değerlendirmesi, özel hastaneler, nitel araştırma, sağlık yöneticileri.

Abstract

Aim: In this study, it was aimed to evaluate the views and opinions of the health administrators, who are working in the private hospitals in Konya province centre about health technology assessment and applications.
Method: Qualitative research methods have been used in research, and phenomologic method is preferred. The research was conducted using face-to-face interviews with health administrators working in private hospitals serving in the centre of Konya and accepting to participate in the research. A semi-structured interview form was used as a data collection tool in the survey.
Results: As a result of the analysis, sub-themes were created under the headings of health technologies, health technology assessment, health technology assessment applications in Turkey, health technology assessment approach of private hospitals, establishment of health technology assessment department, health technology assessment applications of the respondents' hospitals and future position of health technology assessment. And the findings under the created themes are interpreted.
Conclusion: The managers had various information about health technology assessment applications however it was limited. In this respect, it would be beneficial to provide a general education about health technology assessment in order to increase awareness and application of health technology assessment practices.

Keywords: Health technology assessment, private hospitals, qualitative research, health managers.

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Corresponding author / İletişim: Mehmet Akif Erişen, Selçuk Üniversitesi Sağlık Bilimleri Fakültesi Sağlık Yönetimi Bölümü, 42130, Konya, Türkiye.
E-mail / E-posta: akiferisen@selcuk.edu.tr

Yazarların ORCID bilgileri:

M.A.E. 0000-0003-2490-391X, F.Ö.Y. 0000-0002-0059-7949

Introduction

World Health Organisation (WHO) addressed the concept of "technology" from the standpoint of health and formulated a definition for "health technologies". In fact, the term "technology" refers, for the purposes of the World Health Organisation, to a combination of methods, techniques, and equipment, along with the persons employing the same, that may offer significant contributions to the resolution of a health problem (Sargutan, 2009; WHO, 1978).
The health sector is generally one that is focused on advanced technologies with low employment productivity. Health technologies enjoy increasing importance in terms of their role and significance in the provision of healthcare services. Technologies have been in further action not only in the development of health technologies, but also in treatment modalities. Health technologies are considered to represent the highest point of competitiveness for a country (KUDAKA, 2017). When viewed in general terms, health technologies are observed to be perceived merely as medical devices among the public and even among hospital employees. However, the coverage of health technologies is not limited to medical devices, but also encompasses medical and surgical procedures in medical use and the organisational and ancillary systems employed for such healthcare (Garrido, Gerhardus, Rottingen and Busse, 2010).
Banta (2009) defined technology assessment as a form of policy research that examines short- and long-term consequences (for example, societal, economic, ethical, and legal) of the application of technology. The goal of technology assessment was said to be to provide policy makers with information on policy alternatives (Banta, 2009). In general, HTA is defined as "a multidisciplinary process that summarises information about the medical, social, economic, and ethical issues related to the use of a health technology in a systematic, transparent, unbiased, robust manner" (Grenon, Pinget and Wasserfallen 2016; Kahveci and Dilmaç, 2013; Kanis and Hiligsmann, 2014; Kristensen et al., 2008; Martin et al., 2016; Nielsen, Santamera and Vondeling, 2008; Yiğit and Erdem, 2016). Today, mere clinical effectiveness does not suffice in terms of the efficient and effective utilisation of available resources to satisfy a myriad of needs with limited resources for the ultimate goal of effective healthcare services (Kahveci and Dilmaç, 2013). The identification of the technology that offers the highest level of effectiveness is as important as the identification of cost-effective, reliable, legal, and ethically correct technologies for the high-level decision-making process. Decision-making and prioritisation enjoy further importance within the context of decision making on healthcare policies around the world (Cengiz, 2009). Health technology assessment is a new concept for Turkey today, but it is a significant requirement in order to reduce costs within the health sector specifically concerning the utilisation of health technologies. In this context, it will not be wrong to state that private healthcare institutions are prominent among the areas that require health technology assessment to the greatest extent, considering the fact that they represent profit-oriented organisations. Setting off from this specific point, the present research study aimed to evaluate the opinions and perspectives of health managers employed at private healthcare institutions located in central Konya concerning health technology assessment.

Method

Aim of the Study: The study aimed to evaluate the opinions and perspectives of health managers employed at private healthcare institutions located in central Konya concerning health technology assessment.
Population and Sample: Between 01.06.2017 and 01.04.2018, it was found that there were 11 private hospitals in the center of Konya. The study universe consisted of senior health managers employed at these hospitals. The study was implemented on the basis of data collected from five health managers including one participant each from the five hospitals that had consented to the respective interviews. With respect to the remaining six hospitals considered for the purposes of research, health managers refused to take part in the study on grounds of the lack of detailed information on the matter at hand, the lack of time for interviews, or due to the small scale of their hospital of employment. A preference was put forth for the study to use pseudonyms rather than real names of the respondents with a view to protect their confidentiality in ethical terms. Table 1 offers certain descriptive information on the respondents.

Table 1. Descriptive information for respondents

	Names	University of Graduate Degree	Post-Graduate Education	Years of Experience in Private Sector	Years of Experience in Management	HTA Education Received
1	Mr.Fatih	Faculty of Medicine	None	9	9	None
2	Mr.Kaan		Specialisation in Urology	9	5	None
3	Mr.Kemal		Specialisation in Orthopaedics and Traumatology	6	3	None
4	Mr.Mustafa		None	25	25	Received training on health technologies.
5	Mr.Ahmet		None	18	18	Received training on health technologies.

Validity and Reliability of the Research: The validity and reliability of qualitative research is explained through alternative concepts considered to be compatible with the specific structure of a given qualitative research study rather than the concepts of "validity and reliability" as employed for quantitative research. For the purposes of qualitative research, the concept of "persuasiveness" is preferred to be employed in lieu of "internal validity"; "transferability" in lieu of "external validity"; "consistency" in lieu of "internal reliability"; and "confirmability" in lieu of "external reliability" (Merriam, 2013; Yıldırım and Şimşek, 2016).
The evaluation of validity and reliability was conducted in line with the aforementioned principles. Accordingly, long-term interaction was established with the data sources of the research study (respondents and documents) for the purposes of persuasiveness (internal validity) with diversification based on efforts to present the varying perceptions, experiences, and perspectives of the respondents in all of their richness and to conduct the study with a focus on depth. With reference to transferability (external validity), data collected for the study were organised in accordance with coding and arising themes, thereby presenting such data to the reader with strict loyalty to their original nature and allowing for detailed descriptions. In addition, the relevant literature recommends the utilisation of purposeful sampling to improve transferability in qualitative research studies and therefore, the sample for the present study was selected accordingly. For the determination of consistency in research (internal reliability), the preparation of interview questions was built upon opinions collected from the field experts and the questions were posed to the respondents through similar processes and similar approaches during interviews with associations established between data and results.
Data Collection: The study data were collected through the face-to-face interview technique. A semi-structured interview form was composed on the basis of the relevant literature and experts' opinions to be utilised as the data collection tool. In addition, a voice recorder was employed to record the data.
Analysis of Data: Content analysis was employed for the analysis of data. Accordingly, the voice recordings of interviews held with the respondents were primarily transcribed to obtain written records. Then, the data were made subject to coding in order for them to be divided into significant units and for the conceptual meaning of each unit to be understood well. Such coding allowed data to be provided with general explanations and respective codes to be gathered under specific classification. The third stage was marked with the revision and definition of data in line with coding and themes. The final stage was represented by the interpretation of findings (Kıncal,2010; Yıldırım and Şimşek, 2016). Furthermore, Nvivo 11 software was used during data analysis step of the research study.
Ethical Aspect of the Research: The ethical approval for the study was obtained from the university ethics committee on the basis of the certificate dated 23.05.2017, No. 503, and Decision No. 2017/30.

Results

In this section the findings are examined according to the theme and sub-themes mentioned in Table 2.

Table 2. Themes and sub-themes

No	Theme	Sub-Theme
1	Health technologies in Turkey	Utilisation
		Production
		Suggestion
		Rapid Development
2	HTA	Quality
		Necessity
		Maintenance And Repairs
		Efficiency And Cost-Effectiveness
3	HTA applications in Turkey	Private And Public Practices
		R&D Practices
		Quality Practices
		Governmental Interventions
		Device Training
4	HTA approach of private hospitals	SSI Factor
		Executive Profile
		Dependence On Technology
		Comparison Between The Past And The Present
		Restriction
5	Establishment of HTA department	Qualified Labour
		Professionalism
		Hospital Capacity
6	HTA applications of the respondents' hospitals	Medical Devices
		Medicine, And Consumables
		Training
7	Future position of HTA	Employment
		Decision-Making Authority
		Executive Difficulties
		Technological Development

According to table 2, 7 main themes and total 28 sub-themes in the results section are discussed.

Theme 1: Results Concerning Health Technologies in Turkey

The respondents expressed their opinions and offered recommendations on the utilisation and production of health technologies in Turkey. In addition, some respondents drew attention to the rapid development of health technologies. Respondents specified a variety of approaches to the utilisation of health technologies in Turkey. They focused on the following with respect to the utilisation of health technologies and addressed the same under the following dimensions:

"*Turkey is at a better position even when compared to European countries in terms of "access to health technologies and healthcare services offered through such technologies*" …" (Mr.Ahmet and Mr.Fatih);

"*Turkey is more advanced in terms of the utilisation of technologies than most countries and even those that are responsible for the production of such technologies when "benchmarked against foreign countries"…"* (Mr.Ahmet, Mr.Mustafa, and Mr.Fatih);

"Health Transformation Programme" contributed significantly to such advancement in the utilisation of health technologies" (Mr.Ahmet); and

"Misuse of medicines is observed as medicine represents a part of health technologies" (Mr.Kemal).

The respondents expressed their opinions under five dimensions, namely research and development (R&D), level of knowledge, foreign-source dependence, imitation, and local production when addressing the production of health technologies in Turkey. With respect to the production of health technologies, respondents stated that:

"Local production" focus more on rather simple technologies and Turkey remains at an insufficient level with respect to higher technologies" (Mr.Ahmet, Mr.Fatih, Mr.Kaan, and Mr.Mustafa);

"*With reference to "foreign-source dependence", such dependence is extremely high specifically in terms of high technologies and a large number of health technologies employed in Turkey are imported"* (Mr.Ahmet, Mr.Fatih, Mr.Kaan, and Mr.Mustafa);

"*On the contrary, Turkey is at quite a good level in terms of "local production" and most of both lower and higher health technologies employed in Turkey are produced locally and "foreign-source dependence" has decreased when compared to its prior position"* (Mr.Kemal);

"…"R&D" activities have great importance for the production of technologies" (Mr.Mustafa and Mr.Fatih);

"*Engineers trained in Turkey possess a sufficient level of knowledge with reference to the "level of knowledge" in labour as required for production"* (Mr.Ahmet); and

"*The lack of production activities for innovative and higher technologies arises from the "imitative", rather than innovative, characteristics of Turkish people*" (Mr.Kaan).

The respondents offered a variety of suggestions concerning the production and utilisation of health technologies in Turkey and such suggestions were addressed under the dimensions of the responsibilities of parties and the provision of incentives. In this respect, the respondents emphasised that:

"*There is a need for an important role to be played by universities and for cooperation between universities and the industry when it comes to the "responsibilities of parties"…"* (Mr.Ahmet, Mr.Kaan, and Mr.Mustafa); and

In addition, there is a need for the "provision of incentives" through the government for the purposes of local production and procurement with a view to improving health technologies in Turkey.

Beside the aforementioned factors, it is also a fact acknowledged by the majority that health technologies, among other technologies, represent a sector exhibiting quite a rapid development curve. Among the respondents, Mr.Kaan underlined the rapid development in such technologies by stating that *"According to my experience in the profession for 25 years, technological developments in years are pretty rapid. As is the case in communication technologies – with the transition from fixed lines allowing only voice calls to mobile phones and then to phones allowing video calls - rapid developments have been observed in the health sector in this period of 25 years"*.

Theme 2: Results on Health Technology Assessment

The findings concerning health technology assessment were addressed under the themes of quality, necessity, maintenance and repairs, and efficiency and cost-effectiveness. The respondents offered the following observations of emphasis with respect to HTA:

"*HTA practices are closely associated with quality practices*" (Mr.Ahmet);

"*HTA practices are a "necessity" for all health technologies on various grounds (corporate provocation, physicians' requests, and costs, etc.)…"* (Mr.Fatih and Mr.Kaan);

"*Maintenance and repair practices relating to technologies can be addressed within the scope of HTA practices*" (Mr.Ahmet); and

"*Such practices are of great significance when it comes to "efficiency and cost-effectiveness"…"* (Mr.Ahmet and Mr.Mustafa).

Theme 3: Results on HTA Practices in Turkey

The statements expressed by the respondents with respect to HTA practices were evaluated under five sub-themes, namely private and public practices, R&D practices, quality practices, governmental interventions, and device training. Amongst the participants, Mr.Kemal explained that he had not seen any HTA practices implemented in Mr.Kemal with the following statements: *"I have not heard much about such practices. I can say that this is the first time that I have heard about them. I have read in various online resources; I have read that relevant studies were*

conducted. But I don't know what it does or what it is." Furthermore, the other respondents provided the following observations concerning HTA practices in Turkey:
"*Various practices in this scope are in place in the public and private sectors even though not under the title of HTA*" (Mr.Fatih and Mr.Mustafa);
"*There are "governmental restrictions" recently put into effect at certain points with a view to inhibiting such issues as unconscious use, high prices, and waste in the field of health technologies"* (Mr.Ahmet and Mr.Fatih);
"*Academically assisted R&D activities are in place and are in need of further improvements under the theme of HTA practices in Turkey*" (Mr.Kaan);
"*HTA practices constitute a programme aiming to improve the quality of health services and accordingly, there are "quality practices" put into effect by the Ministry of Health"* (Mr.Ahmet); and
"*Device training is offered with a scope covering conditions of use and storage*" (Mr.Ahmet).
They also expressed that all of these practices can be considered under the scope of HTA practices.

Theme 4: Results on the Approach of Private Hospitals to HTA
The present section presents the findings obtained from the data collected from the respondents with the question, "How would private hospitals approach HTA?". The findings relevant to the approach of private hospitals to HTA were addressed under five main themes, namely the SSI factor, executive profile, dependence on technology, comparison between the past and the present, and restriction.
The respondents diverted attention to the fact that HTA practices may "restrict" private hospitals at some point. The respondents expressed their opinions in this regard by emphasising that:
"*HTA practices always aim to increase profitability for both public and private sectors in general, but in addition, they may restrict the private sector and even lead to detrimental results due to the fact that private hospitals are forced to satisfy "patients' expectations" after a certain point"* (Mr.Kemal);
"…"Physicians' expectations and demands" are of great importance specifically with respect to the supply of health technologies and this may constitute a restriction for private hospitals" (Mr.Kaan); and
"*Companies in the health sector – and in all other sectors – must adapt to the conditions of the "competition" to survive and this adds difficulties to the implementation of HTA practices after a certain point"* (Mr.Ahmet).
In addition to addressing the approach of private hospitals to HTA within the dimension of restrictions, the respondents considered the approach of private hospitals to HTA with the following statements:
Neither the public nor the private sectors used to have a close affinity to such practices in the past, while HTA practices occupy a significant place for both public and private sectors today within the context of the "comparison between the past and the present";
"*Health technology assessment is of paramount importance for private hospitals as "dependence on technology" has reached extremely high levels and companies are seizing resulting opportunities and use the same against institutions*" (Mr.Ahmet);
"*The HTA practices implemented by private hospitals should be emphasised further as the "Health Implementation Communiqué Prices" applied by the "Social Security Institution" to hospitals have not been updated for years and this situation forces private hospitals to cut down on their costs"* (Mr.Mustafa); and
The perspective of a given private hospital to HTA practices is closely associated with the "executive profile" in general terms.

Theme 5: Results on the Establishment of an HTA Unit in Hospitals
The present part offers the findings obtained on the basis of the responses of the participants to the question, "As a health executive, how would you feel about a health technologies unit within your hospital?". The data collected in this scope were examined under three main themes, namely qualified labour, professionalism, and hospital capacity.
Addressing the establishment of an HTA unit within their hospitals under the dimensions of hospital capacity, professionalism, and qualified labour, the respondents emphasised that:
"*The necessity for this unit is closely related with "hospital capacity" and rather than the establishment of an HTA unit, relevant matters can be handled by commissions or through relevant personnel training at "small-scale hospitals", while "large-scale hospitals" including large hospital chains, university hospitals, and city hospitals need to establish such units*" (Mr.Ahmet, Mr.Fatih, Mr.Kaan, and Mr.Mustafa); and
"*The establishment of such unit within a hospital will ensure "professionalism" in HTA practices*" (Mr.Ahmet, Mr. Kaan, and Mr.Kemal) and
"this can be a good practice for hospitals, but the lack of "qualified labour" in this field may lead to a problem in various matters notably including cost for the establishment of such a unit in any hospital" (Mr.Kemal).

Theme 6: Results on Health Technology Assessment Practices in Respondents' Hospitals
This part offers the findings concerning the practices implemented at the respondents' hospitals in the HTA field and not necessarily titled as HTA practices. The HTA practices implemented at the respondents' hospitals were addressed under three themes, namely medical devices, medicine and consumables and training.
The respondents indicated that there were HTA practices in place with respect to medical devices within their hospitals. In this context, the respondents expressed the following with reference to HTA practices within their respective hospitals:

"…"*Periodical assessments" are being undertaken at certain intervals with respect to the functioning and use of devices*" (Mr.Ahmet, Mr.Fatih, and Mr.Mustafa);
"*HTA practices are a "must" for all hospitals although not necessarily under the same title and there are practices in place at their respective hospitals to cover this area*" (Mr.Kemal and Mr.Ahmet);
"*Device procurement is secured at hospitals through various assessments, which can be considered to be within the scope of HTA*" (Mr.Kaan, Mr.Kemal, and Mr.Fatih);
"*HTA practices can be supported through "automation extensions" to be added to the automation system in use within the hospital*" (Mr.Mustafa) and
"*there are such practices in place within their hospital"* (Mr.Fatih); and
"*Fixed-term "corporate deals" are executed for the assessment and maintenance and repair of medical devices*" (Mr.Kaan).
There were also some respondents pointing out to the presence of HTA practices relating to medicine and consumables, as well as medical devices. The respondents expressed the following observations with respect to medicine and consumables:
"*There are practices in place to prevent "unnecessary use*"…" (Mr.Fatih and Mr.Kemal); and
HTA practices are a requirement for the public sector to a greater extent than the private sector as HTA practices on medicine are not available at their hospitals by reason of the distinction between "private and public hospitals" and patients in public hospitals are in need of medicine of higher cost.
In addition to all observations specified above, Mr.Fatih underlined their plans to institute HTA practices within his own hospital. However, he also added that they were not greatly knowledgeable on HTA and they would be able to understand their capacity for HTA practices more clearly if they could receive relevant training.

Theme 7: Results on the Opinions of Respondents on the Future Position of HTA
The current part presents the findings obtained from the responses of the participants to the question as to the future position of health technology assessment practices. All respondents agreed, under varying grounds, that HTA might become quite a prominent field in the future. The data concerning the future position of HTA were addressed under four themes, namely employment, decision-making authority, executive difficulties, and technological development.
Evaluating the future position of HTA with reference to technological developments, the respondents explained the same on the basis of benefit, excessive use of technologies and services, and the role of the physician. In this context, the respondents explained the future position of HTA through technological developments and expressed that:
"*Technological developments will render HTA practices a requirement in the future and such practices will offer "benefits" to both hospitals and patients*" (Mr.Kaan);
"*The developments in health technologies are fast approaching a level where they will replace physicians, while it is impossible for technologies to replace the element of feeling available to physicians and with an emphasis on "the role of the physician", HTA will become a much more significant area and HTA practices will become significantly more widespread in the future*" (Mr.Ahmet); and
"*Excessive use of health technologies has started to appear in parallel with the rapid developments therein and this situation has necessitated HTA practices as a matter of course and such practices will be of greater importance in the future*" (Mr.Fatih).
In addition to technological developments, there were some respondents who explained the future position of HTA on the basis of the dimensions of decision-making authority, employment, and executive difficulties. The respondents of such opinions indicated the following on the matter:
"*With an emphasis on currently emerging "executive difficulties" and greater complexity in procedures, HTA practices will facilitate the job of executives and therefore, will occupy an important position for both patients and establishments in the future*" (Mr.Mustafa);
"*New groups of professions will emerge in the future and there will be HTA-related professions among these, thereby improving this field even further*" (Mr.Kaan); and
"*These practices may be conducted by outsourced bodies in the future and such a body can act as a decision-maker on HTA and health practices*" (Mr.Kemal).

Discussion

Sargutan (2009) reported that Turkey is generally dependent upon foreign resources within the context of advanced technologies and medical devices requiring advanced technologies and technical knowledge, while medical devices not requiring advanced technologies and technical knowledge have come to the foreground for the purposes of exports in Turkey. On the other hand, the Ministry of Science, Industry, and Technology indicated that innovative/reference products had become more prominent in imported products and generic drugs occupy the front ranks among locally produced medicine in Turkey (Ministry of Science, Industry, and Technology, 2015). The present study observed an emphasis among the respondents in general on the overwhelming focus of relevant local production of health technologies on simple technologies and the absolute dependence on foreign resources in terms of high technologies.

In the studies conducted by Martelli et al. (2017) and Kidholm et al. (2015), the managers participating in the research stated that they needed the most information about clinical effectiveness and economic aspects when they decided to acquire a new technology. On the other hand, a review of the literature provides that HTA is defined in the broadest terms as "a multidisciplinary process that summarises information about the medical, social, economic, and ethical issues related to the use of a health technology in a systematic, transparent, unbiased, robust manner" (Grenon et al., 2016; Kahveci and Dilmaç, 2013; Kanis and Hiligsmann, 2014; Kristensen et al., 2008; Martin et al., 2016; Nielsen et al., 2008; Yiğit and Erdem, 2016). As a result of the present study, the respondents were observed to perceive health technology assessment as quality practices, efficiency, cost-effectiveness, and maintenance and repair and to explain HTA on the basis of these dimensions.

Kahveci, Koç and Küçük (2017) offer an insight into activities and practices implemented for the assessment of medicine, analysis and examination uses, establishment of new units, technologies, and services on offer (treatment practices) from various perspectives within the scope of HTA practices in place in Turkey. On the other hand, the respondents in the present study pointed out to procurement processes and stages in the supply chain as generic examples with respect to HTA practices previously or currently implemented in Turkey and considered the restrictions put in place by the government on technologies (medicine prices and permitted devices) also within the scope of such practices. The inclusion of practices pertaining to procurement, establishment or supply stages among these practices divert the attention to the fact that considerations concerning these processes among HTA practices previously or currently implemented in Turkey represent a small share in the general picture, even though the same is supportive of the respondents' perception of HTA in close association with procurement and supply processes.

Jaramillo, Osorio-Cuevas and Moreno-Mattar (2016) expressed that those in opposition against HTA considered HTA merely as a means to restrict access to new and expensive technologies. However, as a result of the study, certain respondents were observed to express opinions relating to the potential of HTA to restrict private hospitals on various grounds (physicians' expectations, patients' expectations, and competition, etc.).

It can be said that hospital-based HTA models are utilized in the evaluations made in the procurement process of medical devices and equipment in public and private hospitals, but there is no planned study by the Ministry of Health or another institution to establish or develop the system throughout the country (Dilmaç, 2019). In a study by Cicchetti, Marchetti, Dibidino and Corio (2008), it was stated that HT-STD units were defined as the best formal structure for hospitals, but it was not a very common model in the current practice and that the evaluations made by the internal committees were used more. All managers who participated in the research conducted by Dilmaç (2019) have taken into consideration the HT-STD method and dimensions in a positive way during the acquisition of a health technology. In addition to all this, Kahveci et al. (2017) reported that a hospital-based HTA unit had been established within Ankara Numune Training and Research Hospital, which had later issued a statement to indicate that the hospital had saved more than two million Euro within three years owing to the activities put in place by the said HTA unit. Within the scope of the study, all participants showed positive attitudes towards the establishment of HTA unit in hospitals. On the other hand, respondents addressed the establishment of an HTA unit in hospitals by generally emphasising that the establishment of an HTA unit was a necessity for large-scale hospitals to a greater extent and such a practice would secure professionalism in hospital activities.

The National Library of Medicine (2019) defines the use of HTA for private hospitals as opposed to public hospitals, to be able to compete in the market, to understand the future business environment and to create options for decision-makers (www.nlm.nih.gov). And the role of HTA in achieving these goals in both public and private hospitals is expected to become more important in the future. Also, Kahveci et al. (2017) diverted attention to the expectation that HTA would play a guiding role for policy-makers to increase the value of investments along with growth in national economy and strengthening in healthcare services. Within the context of the result, all respondents indicated that HTA would become a much more importance and targeted field in the future. They explained this opinion on such grounds as the rapid continuation of developments, executive difficulties, and the capacity of this field to create an area of employment.

Conclusions

The data accessed as a result of the study show that the respondents considered Turkey to be at quite an advanced level in terms of the utilisation of health technologies in general and underlined that Turkey was more advanced than most of the other European countries. In addition, respondents stated that Turkey imported almost all of higher-cost and higher-tech products, but produced technologies that were light in weight but heavy in value in general. Accordingly, the respondents believed there to be a primary need to focus on the production of high-level technologies in order for the country to cover a distance in this respect.

In addition, the respondents specified such examples for practices qualifying for the area of HTA as periodical medical device assessments (follow-up of device maintenance and repair and assessment of the ratios of requested analyses and examinations, etc.) and field research for device procurement. Based on such findings, the respondents are considered not to possess detailed knowledge on health technology assessment and relevant practices.

Moreover, the respondents diverted attention to the importance of hospital size for the consideration of an HTA unit to be established and to the establishment of this unit being a great requirement for large-scale hospital chains, city hospitals, or public hospitals rather than small-scale ones.

As a result although managers have various information about health technology assessment practices, this situation has been found to be limited. In this regard, it is considered useful to provide health managers with a general education on health technology assessment in order to raise awareness and implement health technology assessment practices. Also, any study to be undertaken in this field in the future may be suggested to select health managers employed at large-scale hospitals for its universe and sample. Furthermore, the differences among health managers working at public hospitals in terms of their opinions on this matter may be evaluated to provide a comparison between the relevant opinions of health managers employed at both public and private sectors. Any study to be conducted with respect to this field may also examine the differences among the perspectives of varying management echelons by including medium- and low-level health managers in the study sample.

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