

Sufficiency of YouTube Videos as a Source of Information in Kidney Transplantation

Böbrek Naklinde Bilgi Kaynağı Olarak YouTube Videolarının Yeterliliği

ABSTRACT

OBJECTIVE: It was evaluated the sufficiency of YouTube videos related with kidney transplantation as a source of information in this study.

MATERIAL and METHODS: A search was made on YouTube web site on 01.09.2015 with the “kidney transplantation” keyword. Videos were evaluated by two nephrology specialists experienced in kidney transplantation. Scores (between 0 and 10) for “reliability”, “quality”, “usefulness” were given to each video content during expert evaluation. Chi-square, Mann-Whitney U, and Kruskal-Wallis analyses were carried out for the evaluation of the acquired data using SPSS 20.0.

RESULTS: It was determined that 10% of the videos included in the study contained misleading information. It was determined that the videos which have received the highest number of views were on herbal products, surgical intervention and religious knowledge videos respectively ($p<0.05$). When the distribution of evaluated score averages with regard to the source uploading the video was considered, statistically significant differences were determined in all areas ($p<0.05$).

CONCLUSION: Even though there is information on YouTube related with kidney transplantation, there are also videos that include misleading and unprofessional information. It is thought that healthcare professionals have significant responsibilities for ensuring that videos with reliable content are available in social media.

KEY WORDS: Kidney transplantation, Patient information, Social media, YouTube

ÖZ

AMAÇ: Çalışmada; böbrek nakli ile ilgili YouTube videolarının bilgi kaynağı olarak yeterliliği değerlendirilmektedir.

GEREÇ ve YÖNTEMLER: YouTube web sitesinde 01.09.2015 tarihinde “böbrek nakli” anahtar kelimesi ile tarama yapıldı. Videolar, birbirinden bağımsız olarak böbrek nakli alanında deneyimli iki nefroloji uzmanı tarafından değerlendirildi. Uzman değerlendirmesinde; video içeriğine “güvenilirlik”, “kalite”, “yararlılık” puanları (0-10 arasında) verildi. Elde edilen verilerin değerlendirmesinde, SPSS 20.0 kullanılarak yüzdellik, kıkare, Mann-Whitney U, Kruskal Wallis analizleri yapıldı.

BULGULAR: Çalışmada değerlendirmeye alınan videoların %10’unda yanıltıcı bilgi olduğu belirlendi. En çok izlenen ilk üç videonun sırasıyla; bitkisel ürün tanıtımı, cerrahi girişim ve dini bilgi veren videolar olduğu belirlendi ($p<0.05$). Videoyu yükleyen kaynağa göre değerlendirilen puan ortalamalarının dağılımına bakıldığında; tüm alanlarda istatistiksel olarak anlamlı fark olduğu belirlendi ($p<0.05$).

SONUÇ: YouTube’da böbrek nakli hakkında bilgi var olmakla birlikte, yetkili olmayan ve yanıltıcı bilgi içeren videolar da bulunmaktadır. Sağlık profesyonellerinin, sosyal medyada güvenilir bilgi içeriğine sahip videoların yer almasını sağlamada önemli sorumluluklarının olduğu düşünülmektedir.

ANAHTAR SÖZCÜKLER: Böbrek nakli, Hasta bilgilendirme, Sosyal medya, YouTube

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INTRODUCTION

Chronic renal failure (CRF) has become a global problem in our day as a result of the increase of etiological factors such as diabetes. It is estimated that about 9-13% of all adults in the world have CRF (1). One of the methods of hemodialysis, peritoneal dialysis or kidney transplantation (KTx), is used in recent years for patients with renal failure as renal replacement treatment (RRT). It has been determined that 66.711 patients have received RRT as of the end of 2013 (2). KTx is accepted as the best treatment method since it restores the quality of life and decreases costs (3). According to data from the Ministry of Health; 2924 patients underwent kidney transplantation in 2014 (4). More than 80% of these transplantations are from living donors and the number of kidney transplantations from cadavers is not sufficient (5,6). One of the most important reasons for the insufficient number of KTx from cadavers is the unwillingness and indifference of donor families (7). Even though a total of 1969 brain deaths have been declared in 2015 in Turkey, organ donation permission could only be obtained from the families of 472 (8). Annual brain death declaration and donation ratio is way behind Western countries in our country with a population of about 75 million. This indicates the importance of training the healthcare personnel and raising the awareness of the public for solving this problem as well as the importance of ensuring the continuity of these efforts. It is known that the awareness and knowledge of the public on issues of CRF and organ donation are low. Studies carried out in various regions of the world including our own country show that awareness is below 10% (6).

Advancements in technology have brought up the use of internet for sharing knowledge in healthcare. Patients generally consult the internet as the primary source of information since it is accessible at any time and easy to use (9). Today, the use of social media has increased rapidly, thus becoming an indispensable part of our everyday lives. The most popular web sites are stated as Google, Facebook and YouTube (10). YouTube is a website launched in 2005 and has become the most popular video sharing site during these years (10,11). The website allows its users to upload, view and share videos. Videos can be uploaded to the website by professional corporations as well as individual users and it is known that individual users share more videos (12). There is no precaution for ensuring the content security of these videos and unfortunately users are also unaware of the accuracy of the information in these videos. Healthcare professionals should be aware of the content of these videos that are open to access in order to guide their patients in the best possible way (13). Many studies have been carried out related with the quality and reliability of YouTube videos that contain medical knowledge in different fields (gallstone, use of pharmaceuticals in pregnancy, ostomi, etc.) (11,12,14). There are studies on kidney stones (15) and dialysis (16) in the field of nephrology but no study on kidney transplantation was determined. The objective of our

study was to evaluate the sufficiency of YouTube videos related with kidney transplantation as sources of knowledge.

METHODS

Selection of Videos

A search was made on the YouTube web site with the keyword “kidney transplantation” on 01.09.2015. As a result of this search, 4.010 videos were found. The first 158 videos on the first ten pages were included in the evaluation. Date of upload, the uploader, number of views/likes/dislikes were recorded. Videos that were not in Turkish, that had surgical intervention images, that had no medical content (game, herbal product, religious information, etc.), that were repeating, that were longer than 30 minutes and that had been uploaded before 2012 were excluded. A total of 48 videos were not included in the evaluation as they were news programs (n=12), had surgical intervention images (n=9), were longer than 30 minutes (n=8), were repeating (n=8), provided religious information (n=6), were uploaded before 2012 (n=4), or had herbal product advertisement (n=1). Experts evaluated 110 videos from among the 158 videos included in the study.

Video Evaluation

Evaluation of video content was carried out on the basis of information included in the “Kidney Transplant” booklet prepared by the “National Kidney Foundation”. Each video was evaluated independently by 2 researcher nephrology experts experienced in the field of kidney transplantation. Video content was scored during the expert evaluation for fields of “reliability”, “quality”, and “usefulness”. Scoring was between “0: very bad” and “10: very good”. The evaluation average of the 2 researchers was calculated for determining each sub-heading score.

Data Analysis

Chi-square, Mann-Whitney U, and Kruskal-Wallis analyses were carried out via SPSS 20.0 for the evaluation of acquired data. $P<0.05$ was accepted as statistically significant.

RESULTS

It was determined that most of the videos that contained information about kidney transplantation were uploaded by hospitals and physicians (Table I). When the status of inclusion in the study according to the uploader was examined; it was observed that all videos uploaded by civilians were excluded and that this was statistically significant ($p<0.05$). It was determined that 10% of the videos included in the evaluation contained misleading information. When this number was also included; it can be stated that 62.7% of the videos on kidney transplantation have patient informing attributes.

It was determined that the average likes (KW=7.469, $p=0.000$) and views (F=6.133, $p=0.001$) for videos uploaded by civilians were greater at a statistically significant level in comparison with other groups. It was determined that the top three videos

Table I: Distribution of evaluated videos according to uploader.

	Included n=110	Excluded n=48	Total n=158	P
Uploader (n, %)				
Physician	48-43.6	15-31.2	63-39.9	p<0.001
Hospital	52-47.3	12-25.0	64-40.5	
TV channel	10-9.1	7-14.6	17-10.8	
Civilian	-	14-29.2	14-8.8	

Table II: Distribution of the average scores of reliability, quality and usefulness according to the uploader.

Uploader (n)	Reliability mean±SD	Quality mean±SD	Usefulness mean±SD
Physician (48)	5.92±1.37	5.43±1.39	5.34±1.55
Hospital (52)	6.90±1.68	6.40±1.63	6.25±1.85
TV Channel (10)	6.10±1.69	6.30±1.67	6.00±2.04
p value	0.004	0.001	0.036

in terms of the highest number of views were herbal product introduction, surgical intervention and religious knowledge videos (KW=21.701, p<0.001). Whereas it was determined that the top three videos in terms of the highest number of likes were videos with religious information, surgical intervention and news programs (KW=1.721, p=0.131). In addition, it was determined that the average number of likes for videos that were not included in the study were higher at a statistically significant level in comparison with those of the videos that were included (p<0.001).

The reliability score average of the videos watched in the study was 6.49±1.62, quality score average was 5.97±1.59, whereas usefulness score average was 5.83±1.78. When these score averages were examined with regard to the uploader, statistically significant differences were determined in all fields (Table II). It was determined as a result of the advanced analyses made that the statistically significant differences in all three fields were due to the physician group.

DISCUSSION

Today, patients frequently consult the internet to increase their awareness and to make decisions during the treatment process (9). It is thought that social media platforms may be strong tools for communication between patients and other healthcare employees (10). Many studies have been carried out in recent years on the validity and reliability of YouTube videos related with healthcare problems. Even though the data of these studies are different from each other, the common opinion is that websites such as YouTube are important tools of knowledge for educating people (15).

Even though social media is a valuable resource for sharing knowledge, healthcare professionals should be utilized more in order to prevent the spreading of misleading information (10). Hansen et al. carried out a study examining the YouTube videos related with the use of pharmaceuticals in pregnancy during which it was determined that the content of videos related with the use of pharmaceuticals during pregnancy do not contain sufficient information (14). It was determined in our study that the reliability of kidney transplantation videos were at a moderate level and that the reliabilities of videos uploaded by hospitals were greater. This result is thought to be due to the fact that videos prepared by corporations are shared after passing through an intensive research and preparation stage.

The existence of professional online information may contribute to sustaining the relationship between patients and healthcare professionals in trust. However, the medical content of the videos in social media vary significantly (10). Delli et al. carried out a study examining the YouTube videos related with Sjogren Syndrome in which the videos were classified as useful, misleading and patient experiences and it was determined as a result of the evaluation that the quality of the videos in the useful group were greater in comparison with others (17). Koller et al. carried out a study examining the YouTube videos related with hip arthritis in which it was determined that the content and uploader of the videos were educational-physician (40.6%) and educational-non-physician (37.6%). It was determined that the quality of the videos in the educational-physician group was greater in comparison with those of the other videos (18). It was determined in our study that the quality of the videos on kidney transplantation was at a moderate level and that the individual

videos of physicians had a lower quality. It can be stated that this result is due to the fact that the physicians have shot the videos without sufficient preparation and using only their own resources in an amateur manner.

Abedin et al. carried out a study examining the videos related with diabetic foot care in which it was determined that 49.4% of the videos were useless and that the majority of these videos were uploaded by commercial users (19). Hassona et al. carried out a study examining the YouTube videos related with oral cancers during which the videos uploaded by professional associations and healthcare professionals were compared as a result of which it was determined that the videos uploaded by individuals users were less useful (20). Serinken et al. carried out a study examining the YouTube videos on kidney stones in which it was determined that the videos uploaded by hospitals were more useful in comparison with videos uploaded by physicians and other healthcare professionals (15). It has been determined in our study that the usefulness levels of the videos prepared by physicians were lower in comparison with other groups which is a result that is in accordance with the relevant literature. These results lead us to think that hospitals and TV channels prepare their videos in a more planned and programmed manner with team work in a professional manner.

Lee et al. carried out a study examining the YouTube videos on gallstones as a result of which it was determined that 56.5% of the videos contained misleading information and that these videos were uploaded by commercial users (11). Garg et al. (2015) carried out a study for determining whether YouTube is a source of information for dialysis patients or not in which it was determined that 58.3% of the 115 videos contained useful information whereas 16.5% contained misleading information. It was determined that 26.9% of the useful videos were uploaded by universities or professional associations, 16.4% were uploaded by non-profit companies, 32.8% were uploaded by web sites that provide health related information. It was determined in the study that 71.6% of the target population of useful videos and 94.7% of the target population of misleading videos were patients (16). It was observed that all misleading videos were uploaded by individual users with no information related with their personal identifications. These data indicate that the internet has no inspection mechanism and no mechanisms for enforcement for the validity and reliability of the information provided online even though it is a very rich source of information that is easily accessible. It is thought that sharing videos online with information that might mislead the society will have undesired results especially in the field of healthcare. Products that have no scientific basis which are used for treatment purposes may have adverse effects on the lives of patients. It is observed that herbal products with no information on their ingredients along with superstitious applications are available online and what is more saddening is that the number of views for such videos is greater.

Even though there is information on YouTube about kidney transplantation, the number of videos that contain misleading information or that have been uploaded by non-professionals is quite high. The aim should be to utilize experienced healthcare professionals for improving the reliability and quality of the content of information that will be shared in social media. Organ transplantation is a sensitive issue for our country and the society needs trustworthy knowledge that will help in overcoming their doubts about this issue. It can be ensured that the public understands this sensitive issue correctly and that they make use of this type of treatment by increasing the number of organ donations. It is thought that videos with reliable content can be prepared to increase awareness by professionals or institutions thus contributing to the knowledge and training of the society.

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