The Effect of Age and Education Level in Social Media Use as Information Source for Preoperative Pregnant Patients

Abstract: Introduction: The Internet is widely used to obtain information about surgery and anesthesia. It has been the subject of research that education is an essential factor in people’s access to information. We aimed to investigate the effect of age and education on the use of Internet among pregnant patients. Methods: The questionnaire, which was prepared within the scope of the study, was performed in pregnant patients who were scheduled for elective cesarean operation. The questionnaire was performed before the anesthesia application in the operation room. Age, education level, preoperative anxiety levels of the patients, and the sources of anesthesia and surgical information were categorized according to the related studies. Results: There were 98 patients completed the survey for this study. Of those who completed the survey. We divided the groups as a different ages and education levels. According to the correlation test, education level was significant differences for anesthesia knowledge by using social media (p=0.018, r=0.239). And there were no significant differences in surgery knowledge by using social media (p=0.836, r=0.021) Being under 30 ages was significant differences in anesthesia knowledge by using social media (p=0.004, r=0.292). And there were significant differences in surgery knowledge by using social media (p=0.009, r=0.264). Conclusion: We hope that our colleagues will be an element that will emphasize the need to change the methods of informing patients according to our findings.

Keywords: Surgery and Anesthesia, Pregnant Patients, Age, Education Level, Using Social Media.

INTRODUCTION

Today, the Internet is widely used to obtain information about surgery and anesthesia. In this sense, it is seen that pregnant women from private patient groups use the Internet and social media to get information about the cesarean section and anesthesia (Lagan, B. M. et al, 2010). Also, it has been the subject of research that education is an essential factor in people’s access to information (Jacobson, M. J., & Wilensky, U. 2006).

Age is especially important in terms of adaptation to technology, given the developments in informatics in the last two decades (Fortunati, L. 2017). The pregnant population also has an essential effect on the health status of the patients. Under all these circumstances, the stress of the birth population, which is the most important source of stress of the pregnant population, is clear (Bayrampour, H. et al., 2016). Besides, such as a cesarean section is a surgical operation, the current stress on the unknown stress and anesthesia is added to the unknown ( Gençoğlu, N. N. et al., 2019).

In this sense, it is of great importance to know how much information they have to reduce the stress of pregnant patients and what the sources of information are and what conditions they are affected. This study aimed to investigate the effect of age and education on the use of Internet and social media among pregnant patients.

METHODS

The questionnaire, which was prepared within the scope of the study, was performed between September 1, 2019, and November 31, 2019, in pregnant patients who were scheduled for elective cesarean operation in Konya Training and Research Hospital. Necessary permissions were obtained from local ethics committee (489291/19/774). The patients between 18 and 45 years of age who had undergone first cesarean section were preferred in the selection of patients. Our exclusion criteria are; emergency cesarean operations, patient’s refusal to participate in the questionnaire, incomplete filled questionnaire form, and patients who could not communicate. The questionnaire was performed before the anesthesia application in the operation room. Patients were asked to complete a questionnaire only once. Empty answers were not included in the data analysis. In the preparation of the questionnaire, the studies in the related literature have been considered. Age, education level, preoperative anxiety levels of the patients, and the sources of anesthesia and surgical information were categorized according to the related studies. We used education level as numbered 0 unschooled, numbered one primary school, numbered two secondary schools, numbered three high schools, and numbered four universities graduated. The other question was the importance of surgery, and we measured the level of importance with a Likert scale. One point meant that the surgery was not important. Five points meant that yes, the surgery was very important for me.
We evaluated the source of information about anesthesia and surgery, which was informed by social media, friends/neighbors/relatives (medical staff), friends/neighbors/relatives, own doctor, related books, no information previous experience.

Statistics

Patients were divided according to age, education, gender, and preoperative anxiety. Comparisons were made to note the differences between the groups. Data were analyzed with SPSS 22.0 package program for statistical analysis. As a result of the normality test; While the difference between education and age groups was examined, parametric Independent Samples t-Test was used for normally distributed variables, and a nonparametric Mann Whitney U test was used for non-normally distributed variables. While the differences between the groups were examined, 0.05 was used as the level of significance, and p <0.05 if there is a significant difference between the groups, p>0.05 is stated that there is no significant difference between the groups.

RESULTS

There were 98 patients completed the survey for this study. Of those who completed the survey. The average age was 28.73±5.09 years (range 18-45). When we looked at the education levels. Patients were divided into five groups. The first group was unschooled patients(n=4, 4%), 2nd group was primary school graduates(n=45, 45.5%), 3rd group was secondary school graduates(n=27, 27.5%), 4th group was high school graduates(n=18, 18.3%), 5th group was university graduates(n=4, 4.3%)(Figure 1).

When we looked at the parameters in their self, there was a significant difference in the education levels(p=0.001). There was a significant difference in the importance of surgery (p=0.001). There was a significant difference in the information about anesthesia(p=0.001). There was a significant difference in the information about surgery(p=0.001).

For the importance of surgery, 1 point meant that the surgery was not important, but if the 5 points meant that the surgery was very important. We used a Likert scale for his evaluation. The mean value of the importance of surgery was 4.5 in totally. The patients who used the internet for anesthesia knowledge answered the importance of surgery questions as 4.6 points. The patients who used the internet for surgery knowledge answered the importance of surgery questions as 4.8 points.

About evaluation of the between parameters according to the education levels. There was no significant difference in the importance of surgery (p=0.077). There was no significant difference in the information about anesthesia(p=0.254). There was no significant difference in the information about surgery(p=0.533). According to the correlation test, education level was significant differences for anesthesia knowledge by using social media (p=0.018, r= 0.239). And there were no significant differences in surgery knowledge by using social media (p=0.836, r=0.021)(Table 1).

DISCUSSION

In this study, we aimed to obtain information about surgery and anesthesia in our obstetrics clinic. There were statistically significant differences between education levels. In our study, it was also found that the internet was used as a severe source of information, especially in anesthesia and surgical information acquisition under 30 years of age.

In the study of FATHIAN et al., The control and study groups were divided into two groups. And pregnant women were followed until birth. As a result, there was a significant decrease in voluntary cesarean section rates( Fathian, Z. et al., 2007). In the study of Gholamreza Sharifirad et al., 88 pregnant patients were included in the study. These patient groups were divided into three groups as a control group, husbands, and pregnant women. Patients were informed for four weeks. As a result, it was observed that elective cesarean section rates decreased mainly in the groups where husbands were informed( Sharifirad, G. et al., 2013).

In another study, F Shahrahi et al., The study included 200 pregnant patients between 2010 and 2011. Patients were divided into four groups. Behavioral and cognitive training was given to the patients. After the follow-up of the trained patients, a cesarean section rate was decreased (ShahrahiSanavi, F. et al., 2014). As can be seen, studies on surgical procedures for pregnant patients are generally informative studies on cesarean decisions and rates. In this sense, in our study, the sources that the pregnant women learned about curiosity were questioned. In addition, these patients were asked according to their graduation.
When the sources of information with anesthesia were examined, a questionnaire was applied to 100 patients who will undergo a cesarean section. The anesthesia preferences of the patients were questioned. It was emphasized that factors such as nausea and vomiting were determinant in this selection (Shahniki Sanavi, F. et al., 2014). In another study, 209 patients were informed about anesthesia by video. The patients who will undergo surgery were only interviewed before and after the interview. As a result of the study, the anxiety of patients who received video information before the interview was observed less (Salzwedel, C. et al., 2008). The patients who were studied with pre-anesthesia evaluation were informed before anesthesia. It has been observed that significant progress has been made in the adaptation of anesthetics of 207 patients with adequate information (Schiff, J. H. et al., 2010).

As can be understood from these studies, anesthesia information and training studies are usually given in clinics for patient compliance before anesthesia. However, in our study, education levels of the patients and sources of information were examined. When we look at the importance of surgery for the patient, the surgical significance studies, especially in Cesarean section patients, are usually related to fear and anxiety. Depression and anxiety status of elective cesarean section and normal delivery were examined with a meta-analysis of 65 studies. It was concluded that patients who had previously received psychiatric treatment had better tolerated elective cesarean sections (Olieman, R. M. et al., 2017).

In another study involving 150 pregnant women undergoing elective cesarean section, different music was played for patients’ anxiety. In the study, different music was played before the operation, and scoring systems and anxiety levels were examined. As a result, a lower level of anxiety was found primarily in those who listened to Mozart’s works (Drzymalski, D. M. et al., 2020). In fact, in another study, 162 pregnant women were shown a video explaining the hospital procedure and things to do to reduce pre-cesarean anxiety. And as a result, it has been observed that this presentation causes severe decreases in pre-cesarean anxiety in pregnant women (Rabiei, Z. et al., 2017).

In our case, patients were asked to score how important the operation was by using a Likert scale. We aimed to question the importance of surgery and the exchange of information sources. In this sense, when we look at the results, it was observed that the importance given to surgery by patients using the internet as the source of anesthesia and surgical information has a higher score than the general average. Based on these results, we understand that patients who care about the surgery will use the internet to access more information.

Another parameter was the level of education of the patients. In this study, 283 students were recruited. It has been observed that the higher the education level of these students, the more effective internet usage increases (Islam, A. A. et al., 2018). In a review investigating the relationship between social media use and higher education level, issues were discussed in terms of terminology and friendship environment used in some social media platforms. And it was emphasized that adaptation to social media could be overcome more efficiently and comfortably especially in people with high education level (Selwyn, N. 2012). In our study, as the level of education related to access to the information source of anesthesia increased, the use of social media increased. Still, no such significance was found in surgery. We think that this difference is related to the low number of university graduates we grouped as high education levels.

Another parameter we looked at was the effect of age on the use of social media. In a study, the differences between generations in terms of adaptation to new digital devices besides the internet were examined. It has been argued that younger generations are more successful in adapting to new methods, adaption to the internet, and applications in these devices and practical use (Gafni, R., & Geri, N. 2013, February). In another study, a comparison was made on the internet usage and interests of middle-aged and elderly participants. In this sense, as age increases, it is presented that there is a decrease in internet usage, expectations, and practicality (Alterovitz, S. S., & Mendelsohn, G. A. 2013).

In our study, our patient group was between 18-45 years of age because they were pregnant. In this age group, we divided the patients into two separate groups, under 30 and over 30 years, and looked at internet usage as a source of information. There was a significant difference in both statistically and proportionally under 30 years of age. In this case, we conclude that the under-30 group, which can be described as young mothers, is more conscious and more curious about the contribution of the high level of education.

As for the limitations of our study, it was observed that there was a small number of patients at some levels between the education levels of the patients. However, in this case, we think that the sociocultural realities of the study area are effective. Also, while looking at the internet usage, various media platforms could be asked separately, in which case the fact that the companies in question were commercial companies affected the reliability of the study.
REFERENCES


