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Kumiss Treatment in the Context of Health Tourism: A Research in Kyrgyzstan

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ABSTRACT

Aim of the study: *In this study, it is aimed to determine the satisfaction and loyalty perceptions of domestic and international tourists who receive kumiss treatment within health tourism in Kyrgyzstan. In the study, it was also attempted to find answers to some questions i.e. where the tourists having kumiss treatment in Kyrgyzstan come from, from where (which channel) did those tourists get information about kumiss treatment, how much budget they saved for this type of treatment and for what purpose they had this treatment.* ***Materials and Methods:*** *In the research, the data were collected by questionnaire technique from 156 tourists at 9 different accommodation enterprises offering kumiss treatment service in Kyrgyzstan. Cronbach's alpha test was made to check the reliability of scales used in the research, and factor analysis was made to test construct validities.* ***Results:*** *In the result of the study, it was determine that more than half of the participants were women (57.7%) and Kyrgyz citizens (58.3%), and mostly the people who were at the age of 51 years or more, received kumiss treatment (24.4%), most participants consist of the people who received kumiss treatment for the first time (32.7%). It was detected that the dimension which made participants most pleased were "dining services and satisfaction from facility's employees" (arithmetic mean: 4.64). Finally, statistically significant and positive relations were identified between satisfaction and loyalty perceptions of the participants towards accommodation enterprises they had their kumiss treatment.* ***Conclusion:*** *Current data reveal that the tourists receiving kumiss treatment in accommodation enterprises in Kyrgyzstan were generally satisfied and felt a high level of loyalty towards these facilities.*

Keywords: Health tourism, Kumiss treatment, Kyrgyzstan

INTRODUCTION

In the report published by the World Tourism Organization (UNWTO) in 2017, it is stated that the number of international tourist arrivals reached 1 billion 323 million in the year 2017. Considering that the world population is approximately 7 billion and 500 million, it is likely to say that about 18% of the world population is participating to international tourism movement. Again according to data from UNWTO, international tourism revenues reached 1 trillion and 340 billion dollars in the year 2017. Besides, when we take a look at travel intentions of the people participating in international tourism movements, it appears as the visits for spare time, entertainment and holiday purposes (55%), for friend and relatives, health, religion and other purposes (27%), for business purposes (13%) [1]. As you can see, one of the international travel motivations of the tourists is for health purposes.

It is asserted that health tourism may have a lot of positive effects on the labor market and may help reduce the seasonality problem in tourism [2]. On the other side, a report published by VISA and Oxford Economics (2016) points out that the health tourism industry will develop even more in the following 10 years. In this regard, it is excepted that approximately 3-4% of the world population will make international travel in the following 10 years for health tourism purpose [3].

Today, based on the rise in their socio-economic levels and increase in their level of consciousness; people tend towards natural therapy methods rather than chemicals even if they don't have a serious disease i.e. to slow down aging and to feel themselves better and more energetic. The resources that are heterogeneously widespread around the world have made it an important effect on the development of health tourism. Until 20 years before, the health tourism movement used to be from the countries which are less developed in terms of medical technology and medical manpower to more developed countries, specifically to the United States of America (USA). But today, it is seen that the countries which are traveled to receive service for health tourism in many cases have conversely the features of being less developed than the countries of origin which the tourists start their travel. At the present time, health tourism has approximately a 100 billion dollar market volume and has reached an appetizing position in this aspect of tourism for many countries. Today, some factors such as diversification of health services in many countries, increasingly aging of world population and development of rehabilitation opportunities continue to keep people's travels on the agenda that they make for the purpose of quality and low budget treatment and/or care [4].

Besides, although there is not much information available in the relevant literature, it is known that the drink kumiss produced from mare's milk has been used for treatment purposes particularly in Central Asia for years. One of those countries is Kyrgyzstan. Although kumiss treatment has an important health tourism potential in Kyrgyzstan, due to a considerable lack of promotion in this area; Kyrgyzstan is not able to make use of this potential adequately.

Kyrgyzstan, which is accepted as one of the countries having tourism potential in Central Asia, has an important superiority in the region it is located with its natural beauties, rich cultural background, and young population. However, due to some existing problems in Kyrgyzstan (inadequate infrastructure and superstructure opportunities, lack of trained labor in tourism, marketing problems etc.), it can be said that the country's tourism is still at development stage. In the statistics published by UNWTO in the year 2017, it is stated that international tourist arrivals towards Kyrgyzstan reached 2 million 930 thousand in the year 2016 from 855 thousand in the year 2010. In UNWTO's statistics, no data is available for Kyrgyzstan in this category regarding the year 2017. Despite that, it is remarkable that the number of tourists visiting the country has risen 3.5 times between the years 2010-2016. Again, it is stated in UNWTO's statistics that while the international tourism revenues of Kyrgyzstan were 160 billion dollars in 2010, it increased to 429 million dollars in the year 2017 [1]. On the other hand, it is mentioned in the 2017 year statistics of Kyrgyzstan National Statistics Committee that Kyrgyzstan is most visited by Kazakistan citizens (55.4%). This is followed by citizens of Uzbekistan (14.5%), Russia (14.2%), Tajikistan (7.5%), Turkey (1.6%), People's Republic of China (1.2%) and India (0.6%) [5].

Kyrgyz government gives a particular importance to tourism and shows the tourism sector as one of the industries that are initially required to be developed in the country's development plans. In this regard, it is witnessed that big efforts are made both in public and private sectors to diversify tourism in the country and spread tourism activities over the whole year. When the potential of Kyrgyzstan in terms of tourism is considered, it is remarkable that it has a lot of alternatives in terms of tourism diversity. One of these alternatives is health tourism. Particularly the southern parts of the country have rich resources for thermal tourism. Besides, it is witnessed that traveling demands of domestic and international tourists to have kumiss treatment in Kyrgyzstan have increased in recent years and consequently that a tourism mobility is experienced in the country for kumiss treatment purpose.

However, it is remarkable that the kumiss treatment topic was generally reviewed at the conceptual dimension in previous studies conducted in the literature, and that the benefits of kumiss treatment were emphasized generally in those studies. No specific empirical research conducted on domestic and international tourists was found in previous studies of the relevant tourism literature. In other words, it was identified that the previous studies carried out regarding kumiss treatment in Kyrgyzstan were mostly limited with researches related to food science field. Based on that, it is expected that the findings obtained from this study will bring a new point of view to health tourism and contribute to the relevant literature in this sense.

Literature Review

The concept of health tourism and types of health tourism: Health tourism can be defined in its simplest form as "the voyage made from the place of residence to another place (domestic or international) in order to have a service

due to any health reason" [6]. According to Kördeve, health tourism is "traveling of people from their place of residence to another place in order to protect their health, and have physical care, diet, healthy nutrition, relaxation, and mental training in a hotel having professional knowledge" [7].

In the literature, it is stated that health tourism is generally split into 3 types. These are medical tourism, thermal tourism, elderly and disabled tourism [8-13]. It is thought that the kumiss treatment, which has not been yet much discussed in health tourism literature, is included in the scope of medical tourism among the types of health tourism. Beladi, et al., defined medical tourism as a phenomenon which the people travel abroad in order to access medical treatment [14]. The thing implied in this definition with receiving the treatment abroad is that medical treatment opportunity being cheaper in the country to be traveled. In this context, Kördeve described medical tourism as the journey which is made usually from high-income countries to middle or low-income countries in order to get cheaper health service. According to Kördeve, such journeys may be between cities in the same country or be an international travel. In this context, the author states that medical treatment services should come to mind when medical tourism is mentioned [7].

In the present time, the destinations which the people mostly travel for medical tourism purpose include countries such as Turkey, India, Malaysia, Brazil, Thailand, Mexico, Costa Rica and Singapore [15]. For example, India is considered among the important actors in the medical tourism sector. The biggest superiority of India in this field stands out in price-quality balance. In other words, India is able to offer quality health treatment for much cheaper prices than the ones in the USA. From this aspect, India is characterized as one of the most important destinations in the field of health tourism. Likewise, Malaysia can also offer a quality service in medical tourism for much cheaper prices compared to the USA. It is stated that hospital rooms in Malaysia have the comfort just in like five-star hotels. With its worldwide known plastic surgeons, Brazil was also determined by the world as the country that offers the best health service. Patients coming to Brazil mostly receive cosmetics and plastic surgery services [15]. Besides, Thailand is accepted as an important destination in terms of medical tourism. This country features aesthetics surgery in medical tourism [16]. It is stated that Thailand hosts approximately 1.5 million tourists annually for only health tourism purpose [11].

According to Erdem, et al., medical tourism comprises the visits for treatment purposes which include utilization of some health services by individuals carried out at hospital environments. The authors showed plastic surgery operations, eye impairment correction operation, tooth treatments, cardiac operations and test-tube baby practices as samples for these treatment services [12].

However, it is not an obligation to receive kumiss treatment in a hospital environment. Today, it is known that kumiss treatment service is offered in many countries of Central Asia in small and medium scale accommodation enterprises which are especially active in rural areas. In this sense, it can be said that one of the basic travel motivations of tourists mobilizing in order to have kumiss treatment is to reach medical treatment to find a solution for their various discomforts. Accordingly, it is not wrong to qualify kumiss treatment as a phenomenon included in the scope of medical tourism.

The concept of kumiss and kumiss treatment: The word kumiss is widely used by many societies in the Ural-Altaic language group which the Turkish language is included in. It is pronounced as koumiss, kumiss, kyumiss, kymyz, qymyz, qımıź, kumiz in various countries [17]. In this study, the word 'kumiss' was preferred to be used for equivalence of the concept.

Kumiss is a yeasty, dairy and alcoholic beverage which is produced from mare's milk and consumed by Turks in Central Asia with pleasure. Kumiss is in white color and more fluid and pure compared to milk. It is a beverage which does not contain curd particles in it. It has a unique taste, odour, and aroma. No foreign odour is available in kumiss other than alcohol odour. However, the alcohol rate in kumiss is quite low. This rate is close to the rate of alcohol included in many fruits i.e. orange, tangerine etc. [18].

The first scientific knowledge about the chemical structure of kumiss was the report written by the Scotchman Griw in 1784, who was in charge of the Russian army. But before this report, the Frenchman W. Rubrikas who traveled to the region where Tatar Turks were living in the year 1253; gave information about how kumiss was made, its

taste, intoxicant property as well as its effects on human health. Before this information, Heredotos also stated when mentioning Scythians that they obtained spirit from mare's milk. But after Heredotos, no author in the West has mentioned kumiss until the 12th century. After the 12th century, it was seen that kumiss was mentioned in Russian chronicles [19].

It is known that kumiss has been used for 100 years in the treatment of anemia, emaciation and tuberculosis disease. Kumiss has become worldwide famous during the 1800s as a miracle drug, and kumiss treatment sanatoriums were established in Russia. Again it was asserted that tuberculosis, pneumonia, chronic cough, and anemia were treated by kumiss [19].

It is stated that the reason for many diseases is the disorders in gut flora. Particularly with the development of undesired microorganisms in gut flora, toxic materials are formed and intestinal mucosa gets damaged. Thus, as a result of this, some diseases occur. Kumiss is produced from neuraminic acid rich mare's milk and when it is taken into the body, bifidobacteria and lactic acid bacteria control the gut flora and reduce pH (power of hydrogen). Thus, the development of pathogenic microorganisms which were grown in the alkali environment after pH decrease is prevented [20].

Mare's milk has similar properties with breast milk structure. It contains a lot of minerals and vitamins inside. Since the majority of the proteins within its structure are decomposed through microbiological activities, it is easy to digest. Due to its low rate alcohol, it positively affects the nervous system to some extent. Kumiss is appetizing; it increases digestive juice secretion and speeds up gastric and bowel movements. Moreover, it increases the body's capacity to utilize other nutrients [18].

It was revealed by many researchers that kumiss gives positive results in the treatment of nerve and digestive system, respiratory tracts, and diseases such as tuberculosis, dysentery, typhoid, paratyphoid, ulcer and hepatitis [21]. Yaygın states that it is determined by scientific studies that kumiss is the most effective drug particularly in the treatment of pulmonary tuberculosis and that patients with tuberculosis in many sanatoriums of Russia are healed rapidly by kumiss. The author also points out that kumiss is a valuable, thirst-quenching food that increases the desire to work, and with this aspect; it should be recommended not only to patients but to everyone whether young or old [22].

In order to make kumiss, the mares to be milked should be raised specifically among the best ones, especially fed and cared carefully. Besides, the environment which the mares live in, climate, the grass they eat, the water they drink, and shepherd's experience also affect the making of kumiss. For the kumiss being quality, the said factors have an important place [23].

Kumiss production is made at homes, farms, sanatoriums, and industrially at enterprises. But usually, using traditional methods are widespread in the making of kumiss at homes and farms. There are differences between the production of kumiss with traditional methods and its industrial production in terms of technological process and tools-equipment. Mare's milk to be used in industrial kumiss production should be fresh and its density should be between 1.029-1.033. For the kumiss made by this method, stainless steel mixing tanks are used. The mixer has been designed in a way to prevent coagulation. Kumiss yeast is put in the tank, and then fresh mare's milk is added to it. Mixing procedure is followed by a coagulation process at 25-26°C. The product is mixed again and then bottled. During the coagulation process in kumiss production, the temperature is selected as 22-26°C in winter and 26-30°C in summer. After the milk is yeasted, one can feel the unique taste and odour of kumiss [17,18].

There are also various minerals in kumiss. In kumiss, there is a high rate of calcium and phosphorus in particular. It is observed that there are abundant A, B and C vitamins in kumiss. The alcohol rate in kumiss is 1.2%, which is less than the alcohol rate in many fruits. Moreover, the albumin value in kumiss is more than that of the egg. Other benefits of kumiss can be listed as follows: it is a natural antibiotic which is more effective than antibiotic, heals the boils, is roborant, delays aging and provides vitality, is good for digestion system, stomach and intestinal diseases; provides protection against cancer, heals pulmonary tuberculosis, is a good medicine against anemia, fatigue, and anorexia, provides cleaning of blood, decreases cholesterol, thus reduces the risk of atherosclerosis and cardiac diseases, heart attack and acute stroke associated with that, strengthens immune system, strengthens brain, retina, sperm and skin cells, has quite benefits in healing of upper respiratory tract diseases and scars after the operation, is useful for diabetes, thins blood, facilitates blood circulation and prevents blood coagulation, provides protection

against rheumatic diseases, supports depression therapy, helps reduce the risk of dementia and Alzheimer disease, supports collection of calcium in bones and provides their strengthening, less coronary heart disease related deaths are seen in the ones consuming kumiss, slows down arteriosclerosis formation, reduces the risk of stroke, a second heart attack or death after heart attack [17,18,20,22-25].

Nowadays, the countries where the most common kumiss treatment is used are Kyrgyzstan, Kazakhstan, Tatarstan, and Russia. It is witnessed that the kumiss treatment centers in these countries increase their activities, particularly during the spring months. Patients coming from different countries and have liver and stomach disorders are located at motels nearby small horse farms on tablelands. Here, they receive kumiss treatment for 1-week by drinking the horse milk received 4 times a day [26].

Kumiss treatment examples are also seen in Europe. The German B. Zollman, who was captured by the Russians during World War II, caught tuberculosis disease at Karlag labor camp in Russia. When Zollmann was about to die due to tuberculosis when he was released, he stated that he was taken to a village by a Kazakh shepherd and treated by drinking kumiss. Zollmann established a farm with 400 mares in Germany and started to produce kumiss. Besides, another German soldier R. Storch who was captive from Russians at World War II stated that he saw sanatoriums in Russia where diseases like tuberculosis and pneumonia were treated by kumiss. When Storch returned to Germany, he bought the mare and established a kumiss sanatorium [25]. Today, it is consumed as a beverage and a health product in some parts of Western Europe. It is even stated that horse milk is sold in Germany at horse milk markets as fresh, deep frozen (-18°C), in powder or fermented forms [17].

Besides, trotting horses are shown among the popular races in Belgium for the farmers to use in milk production. Horse milk utilization is so much popular in Belgium that a Horse Milk Dairy Association is stated to exist in Belgium that measures the milk quality of products made from horse milk i.e. yogurt, ice-cream and liqueur [27]. Furthermore, there are websites which sell the cosmetic drugs produced from horse milk in Belgium [28]. Again in Belgium, there are big facilities producing mare's milk. One of them is the Paardenmelkerij kumiss facility. In this facility, it is possible to accommodate and consume horse milk products [29].

Nowadays, significant progress was made on mare's milk production as a human food in Western Europe. The interest in horse milk is increasing day by day in Europe as it is believed to be useful in the treatment of some allergic and metabolic diseases. It is stated that the demand growth occurred because of this interest leads to an increase in mare's milk prices [17]. On the other hand, kumiss treatment is also used commonly in Kyrgyzstan. In Russian history books, it is written that kumiss is offered to important guests visiting Kyrgyz Khans. Besides, Kyrgyz people also consider kumiss as a healing agent and use it in some diseases for treatment purposes [25].

The facilities offering kumiss treatment service in Kyrgyzstan are generally established either at high altitude areas outside the cities or at valleys where there are fertile pastures. The reason for this is that the mares grazing on fertile pastures have better milk quality and that the kumiss produced from that milk is more useful [30]. Kumiss treatment or kumiss therapy period in Kyrgyzstan usually starts in the second half of the month May, and this period lasts approximately between two and four months. During this period, the ones wanting to have kumiss treatment go to kumiss treatment centers. Sputnik, the international media organization with its headquarters in Moscow, states that there are approximately 17 facilities providing kumiss treatment service in Kyrgyzstan. As shown in Figure 1, these treatment centers are distributed to different parts of Kyrgyzstan. In Figure 1, the facilities shown by blue color are not completely run as kumiss treatment focused, they give special kumiss treatment service to their guests demanding this treatment. The region where the facilities providing kumiss treatment is located mostly in the Chuy region which also includes the capital Bishkek. Prices in these facilities are determined according to the service given. Daily prices in an average facility are between the range of 1500-2000 Som (approximately 21-29 Dollars), and the prices may go up to 13000 Som (approximately 188 dollars) in some facilities according to the location of that facility and the services it offers. These prices are per person and consist of a package including the room accommodated, 3 meals per day (breakfast, lunch, and dinner) and kumiss consumption 5 times a day. The recommended treatment period to let kumiss treatment be useful is between 7-10 days [31] (Figure 1).

Figure 1 Distribution of Kumiss treatment facilities in Kyrgyzstan by region [31]

METHODOLOGY

Aim of the Research

In this study, it is aimed to determine the profile of domestic and international tourists receiving kumiss treatment within health tourism in Kyrgyzstan as well as their expectations from the treatment, satisfaction from the accommodation enterprises where they get kumiss treatment and their loyalty levels towards them. In the result of the study, answers were sought for the questions such as from which countries did the tourists visiting Kyrgyzstan come from, where (from which channel) did they hear it, how much budget was saved for this type of treatment and for what purpose did they wish to receive it.

Model of the Research and Hypotheses

In the relevant literature, there are research findings which reveal that satisfaction perceptions of tourists participating to health tourism regarding the enterprises stay in the destination they traveled to which vary according to some demographic features [32-36]. Likewise, in some studies in the relevant literature, it was detected that customer loyalty in thermal tourism enterprises varied according to some demographic features of the tourists [37,38]. In some researches in the literature, it was identified that loyalty perceptions of people receiving treatment in hospitals varied according to some demographic features [39,40]. Besides, there are many research findings in the literature in which statistically significant and positive relations were identified between customer satisfaction and customer loyalty in hotel enterprises [41-43]. Again, in some studies in the literature, positive relations were detected between satisfaction perceptions and loyalty levels of the people having treatment in hospitals [39,40,44-48]. Based on the findings obtained from those studies in the literature, the model of the research was created as in Figure 2.

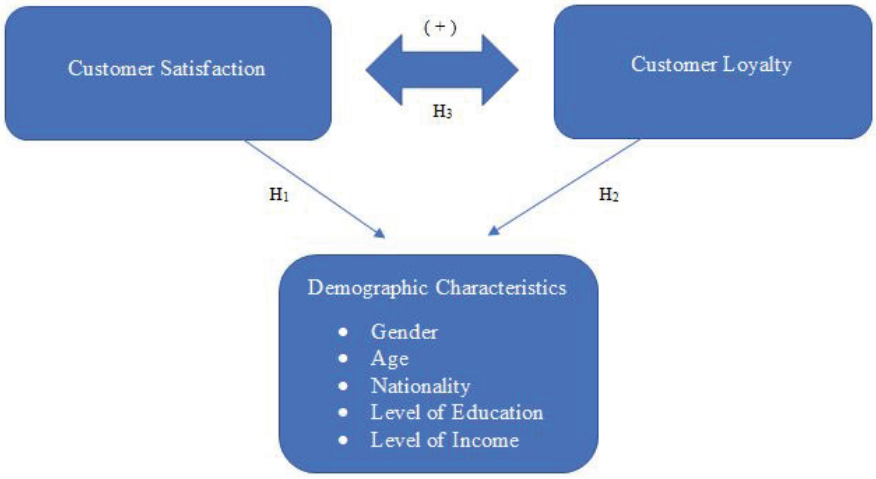

Figure 2 Model of the research

With the help of this model, it is questioned whether there is a positive relation or not between satisfaction perceptions of tourists receiving kumiss treatment in accommodation enterprises and their loyalty levels towards the accommodation enterprise where they received that treatment. Again, with the help of this model, it is searched that whether or not customer satisfaction and loyalty perceptions of tourists receiving kumiss treatment at accommodation enterprises show the statistically significant difference by demographic features. In this scope, the main hypotheses of the research were formed as follows:

- H1 hypotheses: Satisfaction perceptions of tourists receiving kumiss treatment at accommodation enterprises in Kyrgyzstan show the statistically signiicant difference by their demographic features
- H2 hypotheses: Loyalty perceptions of tourists receiving kumiss treatment at accommodation enterprises in Kyrgyzstan show the statistically signiicant difference by their demographic features
- H3 hypotheses: There is a statistically significant and positive relation between satisfaction perceptions and loyalty levels of tourists receiving kumiss treatment at accommodation enterprises in Kyrgyzstan

Population and Sample

The population of the study consists of domestic and international tourists who receive kumiss treatment at accommodation enterprises active in Kyrgyzstan and offering this treatment. Since it is not possible to reach the whole population, sample choosing method was preferred. In this scope, the tourists who received kumiss treatment at accommodation enterprises in Kyrgyzstan from May 2018-August 2018 constituted the population of this research.

According to Sputnik, the international media organization with its headquarters in Moscow, there are approximately 17 facilities providing kumiss treatment service in Kyrgyzstan. While 11 of these facilities are able to offer kumiss treatment to all its guests during kumiss season (May 2018-August 2018), the remaining 6 facilities offer the service in case of a special request from its customers. Therefore, the population of the research was determined as the tourists receiving kumiss treatment in these 11 facilities. These 11 facilities were included in the scope of research for data collection purposes, however; it was identified that 2 facilities were not open (not active) during the period when research data would be collected. In this context, the number of enterprises forming the population was determined as 9.

On the other hand, as the result of negotiations conducted with managers of these 9 facilities offering kumiss treatment service, it was identified that not all the guests staying in these facilities received kumiss treatment, as some of them were staying for recreational purposes. Therefore, tourists were asked if they received kumiss treatment or not before data were collected, and only the data of the tourists replying as “I’m getting kumiss treatment” were collected. In determining the population in this context, the convenience sampling method which is one of the non-probability sampling methods was decided to be used by also considering the difficulty to reach the exact number of the population. In this scope, the said 9 accommodation enterprises were visited between May 2018 to August 2018 and the data was collected from 156 tourists. Thus, the population of the research consisted of 156 participants.

Data Collection Instrument

In the research, data were collected by questionnaire technique. The questionnaire consists of 3 parts. The first part consists of questions intended to identify the socio-demographic characteristics of the participants. In this part, it was also attempted to learn the opinions of participants about how many times they have been to that facility, how they made their booking for that facility, if they received kumiss treatment before, their purpose to come to the facility, average staying period, reasons to choose that facility for kumiss treatment, for what reason(s) they receive kumiss treatment and for which disease(s) the kumiss treatment is good.

In the second part, a scale was used to measure the loyalty of participants towards the accommodation enterprise they receive kumiss treatment. The said scale which consists of 5 propositions was taken from the study of Zeithaml, et al., [49]. The options of participants to evaluate the propositions in scale were determined as follows:

- 1: Strongly disagree
- 2: Disagree
- 3: Neither agree nor disagree
- 4: Agree
- 5: Strongly agree

In the third part of the questionnaire form, there is a scale to determine satisfaction levels of participants regarding kumiss treatment. The relevant literature was reviewed in this scope, and in order to be used in this research; it was tried to determine the scale which has a proven validity and reliability in previous studies as well as the most suitable one for the aim and hypothesis of the study. As there was no other study found in the literature to intend satisfactions of tourists receiving kumiss treatment, studies in which the satisfaction of people participating to health tourism movements was made use of in this research [50-52]. Moreover, some studies focusing on customer satisfaction in thermal tourism enterprises also helped to form this scale used in our research [53,54]. The said studies in the literature were made use of and a satisfaction scale was obtained which consisted of 30 propositions. The options of participants to evaluate the propositions in scale were determined as follows:

- 1: Very bad
- 2: Bad
- 3: Neither good nor bad
- 4: Good
- 5: Very good

Questionnaire forms were collected by two methods. One of them is face to face interview. In this method, the accommodation facilities forming the population were visited one by one, and tourists receiving kumiss treatment in these facilities were interviewed face to face to have questionnaire forms filled. As it was impossible in this way to collect data from all tourists within the research, leave-collect method was referred to increase the number of populations. According to this, the opinion to leave questionnaires to enterprises within the research and collecting the filled questionnaires after some time was adopted. Thus, by using both methods, 156 questionnaire forms were obtained which were suitable to provide data.

RESULTS

Socio-Demographic Characteristics of the Participants

Socio-demographic characteristics of the participants are shown in Table 1.

Table 1 Socio-demographic characteristics of the participants

Variables	N	%
Gender		
Male	64	41.0%
Female	90	57.7%
Unanswered	2	1.3%

Age		
20 and below	13	8.3%
21-26 years	11	7.1%
27-32 years	20	12.8%
33-38 years	29	18.6%
39-44 years	25	16.0%
45-50 years	18	11.5%
51 and above	38	24.4%
Unanswered	2	1.3%
Monthly average Income		
Under 100$	15	9.6%
100-200	29	18.6%
201-300	28	17.9%
301-400	11	7.1%
401-500	10	6.4%
501-600	18	11.5%
Over 600$	39	25.0%
Unanswered	6	3.8%
Marital Status		
Married	111	71.2%
Single	42	26.9%
Unanswered	3	1.9%
Level of Education		
Graduate	65	41.7%
Undergraduate	46	29.5%
High School	33	21.2%
Elementary	5	3.2%
Unanswered	7	4.5%
Nationality		
Kyrgyzstan	91	58.3%
Turkey	5	3.2%
Kazakhstan	25	16.0%
Uzbekistan	14	9.0%
Tajikistan	4	2.6%
Russia	14	9.0%
Other	2	1.3%
Unanswered	1	0.6%
Total	**156**	**100.0%**

The findings in Table 1 can be summarized as follows: More than half of the participants (57.7%) consist of females. The rate of male participants is 41%. It is seen that approximately every one of four participants (24.4%) is 51 years or above age range. This option is followed by the participants in 33-38 years of age group (18.6%) and 39-44 years of age group (16%). One of each 4 participants (25%) has a monthly average income of 600$ and more. This option is followed by the participants having a monthly average income between 100-200 (18.6%) and between 201-300 (17.9%). Most of the participants were married (71.2%). If we take a look at the educational status of participants, the option postgraduate (41.7%) ranks first. This is followed by an undergraduate (29.5%) and high school graduates (21.2%). More than half of the participants consist of Kyrgyzstan citizens (58.3%), which are domestic tourists. This is followed respectively by tourists having Kazakhstan (16%), Russia (9%) and Uzbekistan (9%) citizenship.

Other Descriptive Findings

Other descriptive findings regarding the enterprises which the participants accommodated and received kumiss treatment in this context are shown in Table 2.

Table 2 Other descriptive findings

Is it the first time you are staying in this facility?	**N**	**%**	**The purpose of your visit to this facility?**	**N**	**%**
Yes	101	64.7%	Treatment	74	47.4%
No	47	30.1%	Sense of Wonder	14	9.0%
Unanswered	8	5.1%	Business Purpose	4	2.6%
			Rest/Relaxation	64	41.0%
How did you organize your travel?	**N**	**%**	**Your accommodation period in this facility?**	**N**	**%**
I organized myself	51	32.7%	Daily	7	4.5%
I organized through a travel agency	22	14.1%	1-3 days	27	17.3%
I got help from my connections/friends	78	50.0%	4-6 days	51	32.7%
Unanswered	5	3.2%	7-9 days	37	23.7%
			10 days or more	34	21.8%
Total	**156**	**100**	**Total**	**156**	**100.0%**
Have you received kumiss treatment before?				**N**	**%**
I never received				51	32.7%
I received 1-2 times				46	29.5%
I received 3-4 times				28	17.9%
I received 5-6 times				20	12.8%
I received 7 times and more				9	5.8%
Unanswered				2	1.3%
Total				**156**	**100.0%**

The findings in Table 2 can be summarized as follows: the majority of the participants (64.7%) stated that they visited the facility they accommodate for the first time. Each one of two participants (50%) got help from their connections/friends while organizing their travels. This option is followed by the participants who organized their travel individually (32.7%). It is observed that approximately half of the participants' primary purpose of visit to the facility they accommodate is to get treatment (47.4%). Besides, 41% of the participants stated that they came to that facility for recreation in the first place, but also received kumiss treatment besides that. It is seen that the main visit motivation of 14 participants was a sense of wonder. Four participants specified that they came to the said destination for business purposes, but also received kumiss treatment besides that at the enterprise they accommodate. Around 32.7% of the participants indicated that they stayed overnight between 4-6 days at the enterprise they accommodate. This is followed by the options "7-9 days", "10 days and more" and "1-3 days". And finally, it is understood that 32.7% of the participants never had kumiss treatment before. This is followed by the options "1-2 times" (29.5%), "3-4 times" (17.9%), "5-6 times" (12.8%) and "7 times and more" (5.8%) respectively.

In the next stage, it was attempted to learn the reasons for participants to choose those facilities that they receive kumiss treatment. The results are given in Table 3.

Table 3 The reasons for participants to choose the facility which they receive kumiss treatment

Answer Options	**N**	**%**
I preferred because I was pleased with my previous accommodation experience in this facility	30	19.2%
I preferred because this facility has got quality	43	27.6%
I preferred because this facility is safe	12	7.7%
I preferred because this facility is economic	5	3.2%
I preferred because this facility has a well-known name	30	19.2%
Recommendations from my friends/relatives had an effect on me to prefer this facility	56	35.9%
Recommendations from the travel agency had an effect on me to prefer this facility	11	7.1%
Promotions of audible and visual press (tv, radio) had an effect on me to prefer this facility	6	3.8%
Promotions of audible and visual press (newspaper, magazine etc) had an effect on me to prefer this facility	5	3.2%
Promotions of the Internet/ social media had an effect on me to prefer this facility	23	14.7%
Note: As the participants are allowed to choose more than one option in this question, the total exceeds 100%		

As seen in Table 3, the most important reason that the participants chose the facility they accommodate is the recommendations of their friends and relatives (35.9%). Besides, 27.6% of the participants stated that they chose the facility they accommodate because they thought that it had quality. While 30 participants expressed that they came

again as they were pleased with their previous accommodation experiences in that facility, again the same number of participant group declared that they visited the facility as it is known in the region and elsewhere. Total 12 participants stated their reason to choose that facility as they specified it as safe, and 11 participants said that they chose the facility due to recommendations from a travel agency.

In the next stage, it was attempted to learn for which reasons the participants received kumiss treatment. The results are given in Table 4.

Table 4 The reasons for participants to receive kumiss treatment

Answer Options	N	%
I have no discomfort, I am just receiving it to refresh/recreate myself	97	62.2%
I am receiving kumiss treatment due to my tuberculosis disease	2	1.3%
I am receiving kumiss treatment due to my anemia disease	9	5.8%
I am receiving kumiss treatment due to my digestion system and stomach diseases	34	21.8%
I am receiving kumiss treatment due to my respiration system diseases	6	3.8%
I am receiving kumiss treatment due to my allergic and metabolic diseases	15	9.6%
Other reasons	10	6.4%
Note: As the participants are allowed to choose more than one option in this question, the total exceeds 100%		

As seen in Table 4, the majority of the participants (62.2%) stated that they received kumiss treatment only to recreate/refresh themselves. About 21.8% of the participants specified that they had digestion system and stomach disorders and therefore received kumiss treatment. While the ones stating that they received kumiss treatment due to allergic and metabolic disorders constitute a slice of 9.6%, 9 participants said that they preferred this treatment due to anemia. Besides, 6 participants expressed their reason to receive kumiss treatment as their respiratory disorders and 2 participants as their tuberculosis disease. About 10 people marked the option "other" for the relevant question. The participants marking this option stated their preferences for the kumiss treatment generally as strengthening their immune system, finding a solution to cardiac diseases and removing low platelet count disorder.

In this section, it was finally attempted to learn the opinions of participants about which diseases the kumiss treatment is good for. The results are given in Table 5.

Table 5: "For which disorders you think that the kumiss treatment is good?" the answers are as follows:

Answer Options	N	%
Tuberculosis	35	22.4%
Anemia	38	24.4%
Digestion system and stomach disorders	96	61.5%
Respiratory tract disorders	42	26.9%
Allergic and metabolic disorders	55	35.3%
Other	8	5.1%
NOTE: As the participants are allowed to choose more than one option in this question, the total exceeds 100%		

As seen in Table 5, approximately two-thirds of the participants (61.5%) think that kumiss treatment is good for digestion system and stomach disorders. This is respectively followed by the participants who think that it is good for metabolic disorders (35.3%), for respiratory tract disorders (26.9%), anemia (24.4%) and tuberculosis (22.4%). It was determined that the 8 participants who replied "other" for this question thought that kumiss treatment was good for immune system, cardiac diseases, and low platelet count disorder.

Reliability and Validity Analysis

In order to test the reliability of scales used in the study, Cronbach's alpha test was used. As for the validity, explanatory factor analysis was made. At first, the reliability of the loyalty scale was tested. As a result of the analysis conducted, the alpha was detected as 0.919. This finding reveals that the loyalty scale is a reliable data collection instrument.

In the next stage, the said scale was subjected to factor analysis. In this stage, the suitability of data set for the factor analysis was tested at first. For that, Kaiser-Meyer-Olkin (KMO) value and the result of Bartlett's test of sphericity were considered. In the literature, it is recommended that if KMO value is higher than 0.5, factor analysis can be applied to the dataset [55].

Table 6 KMO and Bartlett's test of sphericity result

Scale	KMO	Bartlett's Test of Sphericity
Customer Loyalty	0.873	X^2: 544.709; df: 10; p<0.000

As seen in Table 6, the KMO value of loyalty scale was found as 0.873. This value indicates that the data set is suitable for factor analysis. In the next stage, the 5 propositions included in the dataset were subjected to factor analysis. Dimensions of loyalty scale were tried to be determined using principal components analysis method on the data. While determining the suitable number of factors, it was considered to choose the ones with an eigenvalue higher than 1. In the analysis, the opinion to remove propositions having factor load under 0.500 from the analysis and after that the repeat of varimax rotation method was adopted. Thus, many authors in the study suggest items with 0.500 or higher factor load to be included in the analysis while making factor analyze and the items under 0.500 to be removed from the analysis [56-59].

In consequence of the first-factor analysis carried out by considering all these issues, no proposition having factor load under 0.500 were identified. As expected, loyalty scale was collected in the sole factor that has an eigenvalue higher than 1. It was observed that this sole factor explained 75.8% of the total variance (Table 7).

Table 7 The result of loyalty scale factor analysis

Factor	Factor Load	Eigenvalue	Variance (%)	Arithmetic Mean	Cronbach's Alpha
Factor 1 (5 Item)					
I am pleased for I preferred this facility.	0.892	3.794	75.89%	4.6022	0.919
I will make the promotion of this facility to the people in my immediate circle.	0.886				
I think to prefer this facility again.	0.874				
I will recommend this facility to the people in my immediate circle.	0.858				
In general, kumiss treatment I received in the facility is worth for the money I spent.	0.846				
Principal component analysis with varimax rotation. Total variance explained: 75.886%; Kaiser-Meyer-Olkin: 0.873; Bartlett's test of sphericity: χ^2: 544.709 df: 10; p<0.000; General arithmetic mean: 4.60; Cronbach's Alpha for the whole scale: 0.919; Answer categories: 1: I strongly disagree, 2: I disagree, 3: Neither agree nor disagree, 4: I agree, 5: I strongly agree					

As seen in Table 7 also, the general average of the loyalty scale that consists of 5 items was identified as 4.60. And the reliability constant was found as 0.919. The basic variable in the factor is that the participants are pleased to prefer the facility they accommodate. When the factor is evaluated in general, it is understood that the participants feel a high level of loyalty towards the accommodation enterprise where they receive kumiss treatment.

In the next stage, the satisfaction scale was subjected to reliability and factor analysis. At first, findings of reliability analysis are shown. As the result of Cronbach's alpha test carried on, the alpha value of satisfaction scale consisted of 30 propositions was found 0.958. Likewise, in order to test whether factor analysis can be applied to a dataset or not, KMO and sphericity test results were checked (Table 8).

Table 8 KMO and Bartlett's test of sphericity result

Scale	KMO	Bartlett's Test of Sphericity
Customer Satisfaction	0.889	χ^2: 2872.568; df: 435; p<0.000

Based on the findings in Table 8, it was decided that factor analysis could be applied to data set constituting satisfaction scale. In the next stage, the 30 propositions included in the dataset were subjected to factor analysis. Dimensions of satisfaction scale were tried to be determined using principal components analysis method on the data. Likewise, it was considered to choose the ones having bigger eigenvalue than 1 when determining the suitable factor, and during analysis, the opinion to remove the propositions having factor load below 0.500 from the analysis and then repeat Varimax rotation was adopted. Besides, Buyukozturk suggests removing any item from the scale which is included in more than one factor with a difference less than 0.10, as it is considered as an overlapping item [60].

In consequence of the first-factor analysis carried out by considering all these issues, 4 propositions having factor load under 0.500 were identified. These are "diversity of food and beverage", "treatment meeting the expectations", "price demanded the rooms", "price demanded kumiss treatment" propositions. It was detected that a load of an item in the

scale (comfort of the room accommodated) was included in more than one factor by a difference less than 0.10. Those items were removed from the scale and factor analysis was repeated again. As the result of this second-factor analysis, it was observed this time that factor load of two propositions which are "prices demanded food and beverage" and "operating status of the goods in the room accommodated (TV., phone, air condition etc.)" received a value under 0.500. Again, a proposition having its load included in more than one factor with less than 0.10 difference (prices demanded the other opportunities in the facility) was detected. When the said propositions are removed from the scale and factor analysis is repeated for the third time, 5 significant factors were obtained with eigenvalue bigger than 1 and consisted of 22 items. It was observed that these 5 factors explained 72% of the total variance (Table 9).

Table 9 The result of satisfaction scale factor analysis

Factors	Factor Load	Eigenvalues	Variance (%)	Arithmetic Mean	Cronbach's Alpha
1. Satisfaction from Food and Beverage Services and Facility Employees (8 Items)					
Interest and kindness of employees	0.789	10.07	45.774	4.6452	0.929
Helpfulness of employees	0.767				
Friendliness of employees	0.753				
The silence of the room accommodated and its surrounding	0.703				
Sufficiency (filling) of the food size	0.683				
Quality of food and beverages	0.662				
Expertness of the person applying kumiss treatment	0.572				
Cleanliness of the food and beverage units	0.570				
2. Treatment Satisfaction (5 Items)					
Informing about the problems that you may encounter after treatment	0.831	1.969	8.951	4.4203	0.867
Informing about the things that should be done after treatment	0.808				
Overall consideration on your treatment and care service	0.748				
Application way of kumiss treatment in the facility	0.659				
Security level	0.526				
3. Satisfaction from Other Opportunities Regarding the Facility (5 Items)					
The existence of activities for the children inside and around the facility	0.894	1.705	7.75	4.2542	0.854
Wireless internet connection (wifi) opportunity inside the facility	0.824				
Sufficiency of alternative opportunities inside and around the facility	0.802				
Location of the facility	0.599				
Reliance on the facility	0.531				
4. Satisfaction from Accommodation (2 Items)					
Cleanliness of the room accommodated	0.787	1.094	4.972	4.5705	0.892
Toilet and bathtub cleanliness of the room accommodated	0.738				
5. Satisfaction from Transportation Opportunities (2 Items)					
Parking lot opportunity	0.791	1.019	4.633	4.2922	0.663
Transport convenience to the facility	0.765				
Principal component analysis with varimax rotation. Total variance explained: 72.080%; Kaiser-Meyer-Olkin: 0.867; Bartlett's test of sphericity: χ^2:2034.880; s.d. 231; p=0 .000; General arithmetic mean: 4.47; Cronbach's Alpha for the whole scale: 0.929; Answer categories: 1: Very bad. 2: Bad. 3: Neither good nor bad. 4: Good. 5: Very good					

As seen in Table 9, the first factor explaining the satisfaction scale with the highest variance (45.774%) consists of 8 items. In this factor, propositions towards satisfaction from food and beverage services and facility employees come together. Therefore, the factor is called "satisfaction from food and beverage services and facility employees". Basic variables in the factor are "interest and kindness of employees" (0.789) and "helpfulness of employees" (0.767). On

the other side, while the fourth item in this factor was expected to be included under satisfaction from accommodation factor in the scale, this proposition was perceived by the group constituting the sample as satisfaction from food and beverage services and facility employees.

The second factor is about treatment satisfaction and explains 8.951% of the variance. Basic variables in this factor consisting of 5 items are "informing about the problems that may be encountered after the treatment" (0.831) and "informing about the things that should be done after the treatment" (0.808).

The rate of third factor's explanation of variance is 7.750%. In this factor consisting of 5 factors, propositions regarding satisfaction from other opportunities offered in the facility come together. Basic variables in the factor are "the existence of activities for the children inside and around the facility" (0.894) and "wireless internet connection (wifi) opportunity inside the facility" (0.824). The rate of the fourth factor's explanation of variance is 4.972%. In this factor consisting of 2 factors, propositions regarding satisfaction from accommodation come together. Basic variable in the factor is "cleanliness of the room accommodated" (0.787).

The rate of the fifth and the last factor's explanation of variance is 4.633%. This factor consists of 2 factors, propositions regarding transport to facility and parking lot opportunities come together. Therefore, the factor is called "satisfaction from transportation opportunities". Basic variable in the factor is "parking lot opportunity" (0.791).

Consequently, the satisfaction scale was explained with 5 dimensions which are "satisfaction from food and beverage services and facility employees", "treatment satisfaction", "satisfaction from other opportunities regarding the facility", "satisfaction from accommodation" and "satisfaction from transportation opportunities." For the whole scale, the alpha value was calculated as 0.929. Besides, when the alpha coefficients of each dimension were checked, it was seen that alpha coefficients in the first four dimensions were over the lowest below limit searched in social sciences literature (0.70), and that alpha coefficient of the fifth factor is realized as 0.663. But in some studies of the literature, it is stated that the alpha coefficient of 60 and over are also acceptable [61,62]. Thus, it can be said that the satisfaction scale is a reliable data collection instrument.

On the other side, when factor averages are ranked from high to low, the appearance becomes as "satisfaction from food and beverage services and facility employees" (average: 4.64), "satisfaction from accommodation" (average: 4.57), "treatment satisfaction" (average: 4.42), "satisfaction from transportation opportunities" (average: 4.29) and "satisfaction from other opportunities regarding the facility" (average: 4.23). In this context, it is understood that the subject which makes participants most satisfied is satisfaction from food and beverage services and facility employees and that the least satisfied subject is the satisfaction from other opportunities regarding the facility. That the general arithmetic means of scale determined as 4.47 can be interpreted as an indication that participants constituting the sample were satisfied with those facilities which they received during kumiss treatment.

Hypothesis Tests

Before testing the hypothesis revealed in the research, the data was checked as to whether distributed normally or not. For this, the Kolmogorov-Smirnov normality test was performed on data. As a result of the test made, (p=0.000) it was identified that the data was not suitable for a normal distribution. Therefore, it was decided to apply non-parametric tests while testing the hypotheses.

At first, it was reviewed whether satisfaction perception regarding kumiss treatment differs in terms of demographic features of the participants. At this stage, the gender variable was considered in the first place. In consequence of Mann-Whitney U test made, no statistically significant difference was found in satisfaction perceptions of the participants according to gender variable. Therefore, H1a hypothesis was rejected.

The second variable considered was the age. Kruskal Wallis test was made in order to examine whether satisfaction perception regarding kumiss treatment differs by participants' age or not. As a result of the test carried out, it was identified that only satisfaction from other opportunities regarding the facility dimension showed a significant difference by age (χ^2=15.271; df=6; p=0.018) (Table 10).

Table 10 Comparison of satisfaction perception regarding kumiss treatment by age variable

VariableS	Overall Perception of Satisfaction	Satisfaction from Food and Beverage Services and Facility Employees	Treatment Satisfaction	Satisfaction from Other Opportunities Regarding the Facility	Satisfaction from Accommodation	Satisfaction from Transport Opportunities
Chi-square	6.226	4.349	4.529	15.271	4.138	4.181
df	6.000	6.000	6.000	6.000	6.000	6.000
P	0.398	0.630	0.606	0.018	0.658	0.652

Mann-Whitney U test was carried out in order to determine among which age groups this difference exists. As a result of the Mann-Whitney U test, significant differences were identified in more than one age groups. It was detected that the first significant difference (p=0.021) was between the participants in 20 years and below age and between 21-26 years of age groups. In other words, it can be said that the participants in 20 years and below age groups were satisfied from other opportunities regarding the facility which is higher than that of the group in 21-26 years of age range.

The second significance is between the participants in 20 years and below age and between 33-38 years of age group (p=0.007). In other words, it can be said that the participants in 20 years and below age groups were satisfied from other opportunities regarding the facility which is higher than that of the group in 33-38 years of age range.

Another significant difference was observed to be between 21-26 years of age and 51 years and higher age groups (p=0.024). From here, it is understood that the participants in the age group of 51 years and higher were more satisfied with other opportunities regarding the facility than the participants of 21-26 years of age group.

Another significant difference is between age group 27-32 years and 33-38 years (p=0.048). In other words, it can be said that the participants in the age group 27-32 years were satisfied with other opportunities regarding the facility higher than that of the group in 33-38 years age range.

The fifth and the last significant difference is between the participants in age groups 33-38 years and 51 years and higher (p=0.003). In other words, it can be said that the participants in 51 years and higher age groups were satisfied from other opportunities regarding the facility which was higher than that of the group in 33-38 years of age range. According to all these findings, the H1b hypothesis was partially accepted.

In the next stage, it was examined whether satisfaction perception regarding kumiss treatment differed by nationality, level of education and level of income. Again, the Kruskal Wallis test was performed for this. In consequence of these tests made, it was detected that satisfaction perception of participants did not cause any statistically significant difference in terms of nationality, level of education and income variables. Therefore, H1c, H1d and H1e hypotheses were rejected.

In the next stage, another hypothesis of the research which was "loyalty perceptions of tourists receiving kumiss treatment at accommodation enterprises in Kyrgyzstan show the statistically significant difference by their demographic features" was tested. In this stage, the gender variable was considered first and the loyalty perception regarding kumiss treatment was reviewed whether showing the difference by gender of the participants. For this, the Mann-Whitney U test was conducted. As a result of this, it was detected that loyalty perception of the participants did not cause any statistically significant difference in terms of gender variable. Therefore, H2a hypothesis was rejected (Table 11).

Table 11 Comparison of loyalty perceptions of participants by gender variable

Scale	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	p-value
Loyalty	Male	64	75.48	4831,00	2751,000	4831,000	-0.511	0.609
	Female	90	78.93	7104,00				

In the next stage, it was examined whether loyalty perception regarding kumiss treatment differed by other demographic features of the participants (age, nationality, level of education and level of income). For this, the Kruskal Wallis test was conducted. In consequence of these tests made, it was detected that loyalty perception of participants did not cause any statistically significant difference in terms of the said demographic variables. Therefore, H2b, H2c, H2d, and H2e hypotheses were rejected (Table 12).

Table 12 Comparison of loyalty perception regarding kumiss treatment by other demographic variables

Demographic Variables		Loyalty Perception
Age	Chi-square	11.505
	df	6.000
	p-value	0.074
Nationality	Chi-square	1.116
	df	5.000
	p-value	0.953
Educational Status	Chi-square	4.706
	df	4.000
	p-value	0.319
Level of Income	Chi-square	2.096
	df	6.000
	p-value	0.911

The last hypothesis of the research was determined as "there is a statistically significant and positive relation between satisfaction perceptions and loyalty levels of tourists receiving kumiss treatment at accommodation enterprises in Kyrgyzstan". In order to test the said hypothesis, Spearman correlation analysis was made. The findings are as shown in Table 13.

Table 13 Correlation analysis

Variables	N	Arithmetic Mean	Standard Deviation	Overall Satisfaction	Satisfaction from Food and Beverage Services and Facility Employees	Treatment Satisfaction	Satisfaction from Other Opportunities Regarding the Facility	Satisfaction from Accommodation	Satisfaction from Transport Opportunities	Loyalty
Overall Satisfaction	156	4.4707	0.45483	1	0.826**	0.850**	0.843**	0.654**	0.704**	0.490**
Satisfaction from Food and Beverage Services and Facility Employees	156	4.6452	0.40695	-	1	0.669**	0.590**	0.618**	0.506**	0.565**
Treatment Satisfaction	155	4.4203	0.54307	-	-	1	0.574**	0.537**	0.566**	0.434**
Satisfaction from Other Opportunities Regarding the Facility	154	4.2542	0.81276	-	-	-	1	0.406**	0.533**	0.431**
Satisfaction from Accommodation	156	4.5705	0.64869	-	-	-	-	1	0.431**	0.343**
Satisfaction from Transport Opportunities	154	4.2922	0.68766	-	-	-	-	-	1	0.258**
Loyalty	156	4.6022	0.58266	-	-	-	-	-	-	1
**p<0.01										

Correlation coefficient takes a value between 0.00-1.00. Correlation coefficient being between 0.70-1.00 indicates a high level of relation; between 0.70-0.30 indicates a middle level of relation, and between 0.30-0.00 indicates a low level of relation [59,60].

When the findings in Table 13 are evaluated overall, statistically significant and positive relations were identified between general satisfaction perception of participants as well as all dimensions in satisfaction scale and loyalty level. While a middle level of relation was found between overall satisfaction (0.490), satisfaction from food and beverage services and facility employees (0.565), treatment satisfaction (0.434), satisfaction from other opportunities regarding the facility (0.431), satisfaction from accommodation (0.343) and loyalty level, and a low level of relation was identified between satisfaction from transport opportunities and loyalty level (0.258). Besides, it is remarkable

that there are a positively oriented middle and high level of relations among the dimensions constituting satisfaction scale and overall satisfaction of participants. Moreover, positively oriented middle level of relations was also detected among all dimensions constituting the satisfaction scale at $p<0,01$ significance level. According to all these findings, the H3 hypothesis was accepted.

DISCUSSION

The findings obtained from this research was compared to results of the relevant literature, and some similarities and differences were detected. For example, likewise the results of some researches in the literature where no difference could be identified between satisfaction perception of guests accommodating at facilities operating in health tourism field and gender variable. It was also concluded in this study that satisfaction perception of participants was not a distinctive character in terms of gender variable [32,33,35]. Based on this result, it can be stated that satisfaction perceptions of tourists, who stay overnight at accommodation enterprises for the purpose of receiving treatment, does not change by gender. Besides, significant differences were detected in some researches in the literature between satisfaction perception of tourists staying overnight at accommodation enterprises and the age variable [33,42]. In this study as well, significant differences were found between satisfaction perception of tourists staying overnight at accommodation enterprises for the purpose of receiving kumiss treatment in Kyrgyzstan. Based on this result, it can be stated that satisfaction perceptions of tourists, who stay overnight at accommodation enterprises for the purpose of receiving treatment, do change by their ages. Particularly depending on the increase in the age level of the participants, it is seen that they have a higher perception of satisfaction. Again, in some studies in the relevant literature, it was identified that there were positive oriented relations between satisfaction perceptions and loyalty levels of people having treatment at hospitals [39,40,44-48]. In this study as well, significant differences were detected between satisfaction perceptions of the participants towards accommodation enterprises they received kumiss treatment and customer loyalty. Based on this result, it can be stated that the satisfaction of tourists staying overnight at accommodation enterprises for the purpose to receive treatment, has a positive effect on their loyalty towards the enterprise they accommodate.

Besides, there are some points which are different from the findings of previous researches in the relevant literature. For example, while significant differences are identified in the literature between satisfaction perception of tourists staying overnight at health enterprises and accommodation enterprises and level of income variable, unlike these results; no statistically significant difference could be found between satisfaction perception of participants and level of income variable in this study [33,42,53]. Thus, it is observed that statistically significant relations between participants' level of income and satisfaction perceptions of tourists in previous researches do not exist anymore in this study. In other words, satisfaction and loyalty perceptions of tourists accommodating in Kyrgyzstan for the purpose to receive kumiss treatment do not indicate statistically significant difference according to the income level of tourists.

In related literature, the topic of kumiss treatment in the context of health tourism was generally reviewed conceptually [63]. Therefore, the empirical findings obtained from this study are expected to contribute to the related literature.

CONCLUSION

In this study, it was focused to determine the profile of domestic and international tourists receiving kumiss treatment within health tourism in Kyrgyzstan as well as their expectations from the treatment, satisfaction from the accommodation enterprises where they get kumiss treatment and their loyalty levels towards them. As a result of the study, it was determined that approximately one third (32.7%) of the participants have never received kumiss treatment before, again approximately one third (29.5%) of them have received kumiss treatment 1-2 times. It was identified that approximately every one of two participants (47.4%) visited the facility they accommodate for treatment purpose and the majority of them (32.7%) stayed overnight in those facilities between 4-6 days. The participants stated that the most effective factor for them in choosing those accommodation enterprises they received kumiss treatment was the recommendations of their friends/relatives (35.9%). The great majority of the participants (62.2%) expressed that they had no disorders but received kumiss treatment only to regenerate/refresh themselves. Besides, 21.8% of the participants stated that they received kumiss treatment since they experienced a digestion system and stomach disorder. As similar to this finding, the majority of the participants (61.5%) think that kumiss treatment is good for digestion system and stomach disorders. Besides, it was determined that the participants showed a high level of loyalty

towards accommodation enterprises where they received kumiss treatment. It was detected that the dimension which makes the participants at accommodation enterprises offering kumiss treatment most satisfied was satisfaction from food and beverage services and facility employees. The dimension which was identified as the least satisfying one for the participants was the satisfaction from other opportunities regarding the facility (i.e. the existence of activities for the children inside and around the facility, wifi opportunities inside the facility). Thus, it is recommended for the executives in enterprises providing kumiss treatment to improve wifi opportunities in the facility by considering that tourists accommodating do not take action only with the motivation of receiving treatment, increase the number of activities for children and offer alternative opportunities for the guests which they can benefit in and around the facility. Despite that, since the overall arithmetic mean of replies given to the propositions in satisfaction scale used in the research was determined as 4.47, this can be interpreted as an indication that the group constituting the sample were pleased from those facilities at a high level. Finally, a statistically significant and positive oriented relation was detected between satisfaction and loyalty perceptions of the participants. Similar to the findings of previous researches, the existence of a positive oriented relation between customer satisfaction and customer loyalty was also supported by the result of this research.

Limitations and Suggestions for Further Researches

Kumiss treatment is a form of treatment which can be received in spring and summer months. Accordingly, tourist travels to receive kumiss treatment in Kyrgyzstan mostly correspond to the spring and summer period. Therefore, the research data is limited to the date range of May 2018-August 2018. On the other hand, this research remained limited with domestic and international tourists who visit accommodation enterprises offering kumiss treatment during the period of data collecting. Time and cost constraints did not allow to increase the number of samples. Increasing the number of samples in future studies can be more useful in terms of reaching more generalizable results. Besides, this research is limited only with Kyrgyzstan destination. In fact, it is known that there are accommodation enterprises offering kumiss treatment service in many countries in Central Asia. In the following researches, similar researches to be conducted in countries other than Kyrgyzstan will contribute to the literature. Finally, the sample in this research was chosen as domestic and international tourists. In the following researches, qualitative researches to be conducted on owners or executives of facilities offering kumiss treatment may contribute to the relevant literature.

DECLARATIONS

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Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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