

Clinical trust, perceived value and behavioural intention of medical tourists: Moderating effect of optimism and pessimism

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Abstract

This study investigates the relationships among trust, perceived value and behaviour intention of medical tourist with the moderating effect of optimist-pessimist variables. Data were collected from tourists who got medical treatment or surgery in hospitals. Findings reveal that perceived value plays a partial mediating role between clinical trust and behavioural intent. Besides, the effect of perception of trust of optimist persons on behavioural intent was significant and positive whereas such relationship is insignificant for pessimists. The effects of clinical trust and perceived values on behavioural intentions were found to be higher for pessimist medical tourists than that of optimists.

Key words: Medical tourism; trust; perceived value; optimist-pessimist; behaviour intention

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Introduction

Medical tourism has shown a rapid development in almost all regions of the world and has become one of the lucrative business (Heung *et al.*, 2011; Connell, 2013; Yu & Ko, 2012; Pagan & Horsfall, 2020). As people travel long distances to obtain medical services and take vacation at the same time, medical tourism is defined as a popular cultural phenomenon (Connell, 2006). Medical tourism can be core or secondary tourism product for increasing the tourism revenue or overcoming the seasonality problem at mature and emerging destinations. Gupta (2004) highlights the importance of cooperation between medical institutions and tourism industry in providing affordable medical care for patients. As the popularity of medical tourism increases, competition among the destinations becomes denser. Medical tourism destinations that use their low cost advantages in the competition may not hold their position forever. Dissatisfaction with local health services, insufficient coverage of health insurance (Connell, 2006), high costs, long waiting times, willingness to receive higher quality service (Tengilimoğlu, 2013) are among the main reasons for participating in medical tourism. Thus, all elements of medical tourism need to be better understood in order to ensure sustainable medical tourism development (UNWTO, 2018).

Studies show that behaviour of medical tourists is affected by many factors such as quality of facilities (Yu & Ko, 2012; Han & Hyun, 2015; Lajevardi, 2016; Wu *et al.*, 2016), trust to clinics and doctors (Han & Hyun, 2015; Wu *et al.*, 2016) and perceived value of the services (Wu *et al.*, 2016). Despite the researchers' increasing interest in understanding the factors that affect the medical tourists' behaviour, e.g. visiting or revisiting the medical facilities, there are still gaps in the literature.

Studies about medical tourism are mostly related to the visiting intention of prospect medical tourists and its determinant factors. For instance, Smith and Forgione (2007) determined the factors affecting the choice of facility and country in medical tourism as political climate, costs, economic conditions, regulatory policies, quality of care, hospital accreditation, and doctors' education. Some other studies focus on behavioural intent of medical tourists who visit the destination with health-related motivation. Connell (2013) highlighted that behaviour of medical tourist is driven by culture, quality, and availability of care. Although there are many studies attempting to understand what affects the thoughts of people when they decide to travel for health reasons, little is mentioned about the impact of personality traits like optimism and pessimism.

On the other hand, a large number of tourists who visit a destination with other motivations, i.e. relaxation, need healthcare while on vacation. Therefore, their experiences with healthcare facilities might also affect their behavioural intention, e.g. decision to choose the same hospital or destination when they experience health problem in the future. This arises a necessity to investigate the antecedents of behavioural intention of those tourists who got treatment from health care facilities abroad while having holiday.

The aim of this study is to investigate the effect of perceived value and clinical trust of medical treatment on behavioural intention of tourists who had medical treatment in the destination. In addition, it also aims to examine whether these relationships differ for optimist and pessimist tourists. A very popular resort destination, Antalya, was chosen for this study and a survey was conducted among tourists who got medical treatment at least once in healthcare facilities at destination.

This study contributes to the literature in several ways. It is the first time, to our knowledge, that optimism/pessimism is used as a moderator variable on the relationships between clinical trust, perceived value, and behavioural intention of medical tourists. Moreover, the research was conducted

at a mature resort destination, so the findings can help such destinations aiming to invest in medical tourism along with their traditional tourism products.

Literature review

Trust

It has been revealed by different studies that trust perceived by patients in medical tourism plays an important role in creating positive behaviour towards goods and services (Aydin *et al.*, 2005; Han, 2013; Han & Hyun, 2015; Wu *et al.*, 2016). Trust is regarded as a vital concept in relationships between two persons, two organisations, and person and organisation. Trust between person and organisation consists of two elements: trust to employees and trust to policies and practices of companies (Sirdeshmukh *et al.*, 2002). Trust to employees is related to perceptions of customers about the behaviour and performance of employees during their encounter in service delivery process. On the other hand, trust to company's policies and practices is based on its performance (Pizzutti dos Santos & Basso, 2012), which includes expectations on what is promised by service provider (Sirdeshmukh *et al.*, 2002) and willingness to rely on exchange partner (Moorman *et al.*, 1992) in terms of reliability and integrity (Morgan & Hunt, 1994).

Flavián *et al.* (2006) point out that level of trust depends on the satisfaction level of customer needs and wants. Persons with high level of trust tend to perceive and predict the positive outcomes easily, and believe that this situation will continue in the future (Aydin *et al.*, 2005). Trust leads to long term benefits from a relationship, rather than short term ones (Morgan & Hunt, 1994). Hence, trust is denoted as a useful mean to minimize the uncertainty by eliminating its main reasons (Sirdeshmukh *et al.*, 2002). Once the uncertainty is eliminated and customers trust the brand, positive behavioural intentions are developed (Aydin *et al.*, 2005; Frikha *et al.*, 2017).

Trust is also one of the most important factors to establish everlasting relationship between patient and medical facility (Han, 2013; Han & Hyun, 2015). Patient's trust to medical facilities is highly related to the beliefs to doctors about providing convenient treatment and medical care (Anderson & Dedrick, 1990; Thom & Campbell, 1997; Wu *et al.*, 2016).

Perceived value

Creating value for the customers is a strategic priority in every sector, as it positively affects the satisfaction, repurchase intention, and commitment (Gallarza & Saura, 2006; Lu & Shiu, 2009; Claudet & Ghantous, 2013; Keshavarz & Jamshidi, 2018).

Value can be traced in the evaluation of the trade-offs in the buying process of goods and services by the consumers where they compare the benefits and costs of transactions. Perceived value is traditionally seen as main component of the consumer decision and behaviour (Zeithaml, 1988) which seeks a balance between quality and price (Sinha & DeSarbo, 1998). It represents an exchange of what is received (e.g., quality, benefit or other valuables) and given (e.g., cost or time) (Woodruff, 1997; Zeithaml, 1988). To increase the customer's value perception, benefits should be maximized whereas sacrifices should be minimized (Anderson & Narus, 1998). This will lead to pricing optimization because it will positively affect sustainable management process as well as customer's willingness to purchase (Dodds *et al.*, 1991).

In tourism literature, perceived value is regarded as a subjective and dynamic construct that determines the magnitude of disadvantages or advantages that tourists have when they buy and consume the tourism products. It is a multi-dimensional construct, e.g., quality, social, emotional, and price (Kim &

Thapa, 2018), that depends on the evaluation of tourists (Al-Ansi & Han, 2019). Studies show that perceived value affects the satisfaction positively (Gallarza & Saura, 2006) and mediates the relationships between risk and intent to buy (Lu & Shiu, 2009), emotion and satisfaction (Claudet & Ghantous, 2013), quality and loyalty (Keshavarz & Jamshidi, 2018).

Understanding the perceived value of the experiences of medical tourists plays significant role in increasing the share of medical tourism (Hallem & Barth, 2011). Perceived value in medical tourism is stated as comparison of benefits and sacrifices associated to medical tourism products by the medical tourists (Wang, 2012). Service quality, reliability of hospital, and hospital image are among those constructs that affect the perceived value of medical tourists. Lu *et al.* (2016) found that personal factors (self-esteem and risk attitude) and external factors (word-of-mouth) can affect the perceived value of medical travellers.

Behavioural intention

Behaviour is a whole of cognitive, emotional and physical reactions to external environment. Human behaviour does not occur spontaneously. Behaviour in a particular situation depends on factors such as attitude, knowledge, experience, self-confidence or habits (Sabuncuoğlu & Vergiliel, 2013). Behaviour includes the person's positive or negative attitude towards an object (organisation, manager, economic product, etc.) based on their beliefs and knowledge (Kahraman & Işözen, 2019). Therefore, the behavioural intention, as a multi-dimensional concept, consists of word-of-mouth (WOM), price sensitivity, purchase intentions and complaining behaviour (Alexandris *et al.*, 2002), which represents an individual's decision or commitment to perform a given behaviour (Cham *et al.*, 2016).

On the other hand, studies that search for the behavioural intention of tourists who have visited the destination, include revisit intention and recommendation (Wu *et al.*, 2014). Being an important component, especially in terms of sustainability of medical tourism, behavioural intention is one of the ultimate goals in consumer marketing (Wu *et al.*, 2016). Although there is a vast number of studies on customers' behavioural intentions in different areas, few studies researched the behavioural intention of medical tourists (e.g., Wang, 2012; Wang & Wang, 2013; Han & Hyun, 2015; Wu *et al.*, 2016; Lu *et al.*, 2016). In this study, behavioural intention refers to the tendency of medical tourists to revisit and recommend destination as the medical tourism destination.

Optimism and pessimism

Since people's expectations affect their intentions, it is important to know their inner perspectives (Rego *et al.*, 2018). Optimism and pessimism, which are two opposite concepts, are about the positive and negative expectations of people. According to Scheier and Carver (1992), being an optimist (and pessimist) who has positive (and negative) expectation from life is considered as an important determinant of adaptation to life and tendency towards positive or negative expectations that everything will go well or bad in life.

Optimism is a feature that can be learned, changed and developed (Seligman, 2006). Individuals make positive or negative impacts on events depending on past experiences and optimism can be gained by acquiring new cognitive skills. According to the view that considers optimism as a form of attribution (Seligman, 2006; Carver *et al.*, 2010), optimists evaluate the failures or negativities they encounter in life depending on temporary, auditable specific problems, and external factors.

An individual's general health (psychological, sociological, physiological) status is highly related to optimism. Pessimism is said to affect health negatively (Carver *et al.*, 2010) whereas optimism and

quality of life are positively associated (Finck *et al.*, 2018). So, optimism and social support play an important role in coping with the diseases. Pessimism, on the other hand, negatively affects individuals' psychological, sociological and physiological well-being (Peterson & Seligman, 1987). Pessimistic individuals do not take action because they think they cannot produce positive results no matter what they do, and evaluate problems and negatives permanently, comprehensively and personally (Peterson, 1991; Seligman, 2006). Compared to optimists, pessimists are said to have little hope for the future, and then are more at risk of depression and anxiety disorders due to impaired social functionality and quality of life (Conversano *et al.*, 2010). Optimism improves subjective well-being and health through coping behaviours or strategies in order to reduce negative mood and emotional exhaustion. Therefore, the high level of patient optimism in medical tourism is one of the important factors that might affect the treatment process positively and to display positive behaviours.

Optimism is thought to help tourists cope with unexpected events in tourism (Garcês *et al.*, 2018). It is also an important factor in sustainable medical tourism practices in ensuring that behavioural intent is supported with a positive perspective of the patient. In addition to promoting a healthy lifestyle, optimism significantly affects mental and physical well-being with adaptive behaviour and cognitive responses associated with greater flexibility, problem-solving capacity, and more efficient detailing of negative information (Conversano *et al.*, 2010). Negative emotions about the patient's ailments should be directed towards the optimism. It is also known that it positively affects the treatment process and produces positive behavioural results in medical tourism (Kivimaki *et al.*, 2005; Friedman *et al.*, 2006; Carver *et al.*, 2010). In this study, the effect of optimism-pessimism on the relationships between trust, perceived value, and behavioural intention was researched using multigroup analysis in which each medical tourist was assigned as either optimist or pessimist, according to the result of cluster analysis.

Research model and hypothesis development

It is emphasized that trust is a prerequisite for maintaining long-term relationships with the business (Morgan & Hunt, 1994). The (re)purchase behaviour of customers is strongly related to the degree of trust in the product or company (Kim *et al.*, 2008). Consumers' trust in service providers helps reduce cognitive risks and insecurities which contribute to sustaining long-term relationships (Gefen, 2000). Studies that researched the relationship between trust and behavioural intent found that trust can be a main determinant of behavioural intention (Han, 2013; Han & Hyun, 2015). Thus, following hypothesis was formulated as:

Hypothesis 1: Medical tourists' trust to clinics positively and significantly affects their behavioural intention.

Previous research reveal that consumer trust is positively associated with perceived value (Kang & Sharma, 2012; Lien *et al.*, 2015). Al-Ansi and Han (2019) showed that the value perceived by the halal tourism participants had a positive effect on destination trust. Chiu *et al.* (2012) found that value perception positively affects satisfaction and trust. According to the study of Kang and Sharma (2012), trusting to a brand becomes significant when customers buy personal care products and the perceived value increases when customers gain positive association to the brand personality. Similar to the studies in different fields regarding the positive relation between trust and perceived value, medical tourism studies also support the relationships between trust and perceived value (Wu *et al.*, 2016). Therefore, hypothesis was formulated as:

Hypothesis 2: Medical tourists' trust to clinics positively and significantly affects perceived value.

Perceived value is the forerunner of behavioural intentions (Zeithaml, 1988; Wang, 2012; Wu *et al.*, 2016). Positive relationships were reported between perceived value and behavioural intent in medical tourism (e.g., Saiprasert, 2011; Aljumah *et al.*, 2017; Wu *et al.*, 2016). Aljumah *et al.* (2017) state that the perceived value and trust in Malaysia medical tourism are significant mediators in the relations between service quality, satisfaction and foreign patient loyalty. Wu *et al.*, (2016) reported that patient's trust and perceived value positively affect behavioural intention of Chinese medical tourists. They also stated that the higher the perception of the value among medical tourists is, due to the positive relationship defined between perceived value and behavioural intentions, the more returning or revisiting behaviours for medical treatment for next years is reported. Therefore, we proposed the following hypothesis:

Hypothesis 3: Perceived value significantly and positively mediates the relationship between clinical trust and behavioural intent.

Studies show that persons who have high levels of optimism might have higher trust in others (Marsh, 1994). Kivimaki *et al.* (2005) concluded that optimism is helpful in reducing the risk of health problems and provides faster recovery after a major life event. Although optimism contributes positively to the mental and physical health of individuals, pessimism puts it in a negative position (Eryilmaz, 2015). In related studies, it is stated that pessimistic individuals have more depression symptoms (Sweeney *et al.*, 1986), low life satisfaction (Chang & Farrehi, 2001) and self-esteem (Scheier & Carver, 1993). Although the researchers generally agree on the positive effect of optimism on health, some studies also show that being pessimist can be more helpful at surgery and radiation applications, especially for cancer patients (Johnson, 1996; Pinqart *et al.*, 2007). According to the Bio-psychosocial Model, as the defensive pessimistic individuals start to think about the possible negative consequences of possible threats, the cardiovascular reactions are activated and individuals tend to take measures to prevent negative consequences (Mendes *et al.*, 2007).

However, there is no study in the literature that empirically tested whether optimism level affect the behavioural intentions of medical tourists or not. Therefore, the following hypotheses were proposed:

Hypothesis 4: Optimism-pessimism level significantly moderates positive relationship between trust and behavioural intent, thereby making this relationship stronger for optimist than pessimist medical tourists.

Hypothesis 5: Optimism-pessimism level significantly moderates positive relationships between trust and perceived value, thereby making this relationship stronger for optimist than pessimist medical tourists.

Hypothesis 6: Optimism-pessimism level significantly moderates positive relationships between perceived value and behavioural intent, thereby making this relationship stronger for optimist than pessimist medical tourists.

Research model of the study can be shown in Figure 1.

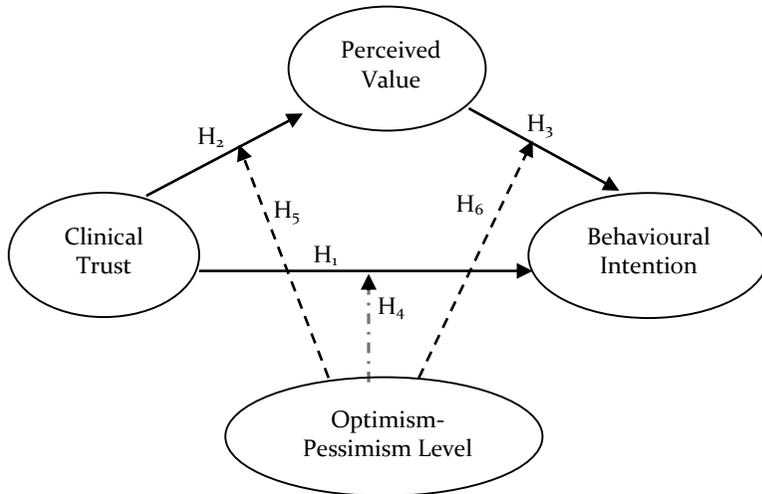


Figure 1. *Research model*

Methodology

Data collection and analysis

Data was collected from tourists who benefited from medical services in Antalya. Antalya is a popular resort destination of Turkey where is visited by more than 14 million tourists yearly. In order to spread the tourism activities throughout the year, health tourism was considered as one of the alternative tourism types by the destination's stakeholders. Therefore, hospitals in Antalya give utmost importance to international medical tourist and the tourists who come for other purposes, but require treatment during their visit. Purposive sampling method was used and 453 foreign tourists, who got medical treatment in hospitals, agreed to participate in the study. To collect the data, self-administered questionnaire technique was used. Data were collected between 23.05.2019 and 01.11.2019. In order to avoid with serious data omission and straight-lining pattern, questionnaires were screened carefully. As a result, a total of 451 usable questionnaires were retained.

Participants were generally between the ages of 31-50, earning between 1000 and 3000 \$ monthly, with high level of education, and, mostly, coming from Commonwealth of Independent States. Male and female ratio is almost the same while married participants are dominant in the sample. General health check, orthopaedic, and dental care take place in the top three of the health services received by medical tourists.

SPSS v.23 and AMOS v.21 were used for the analyses and testing of the hypotheses. The constructs used in proposed model were first examined for the whole data set (N=451). After the model was validated, medical tourists were segmented according to their optimism level by K-means of cluster analysis and grouped as optimist and pessimist. Multigroup variance analysis was used to see the differences between the two groups in the structural path model. Multigroup invariance testing was performed via comparing unconstrained baseline model with the constrained models to test the moderating role of optimism level of medical tourists on the relationships among trust, perceived value, and behavioural intent.

Table 1. Profile of respondents

Characteristics		N	%
Age	18-30	80	17.7
	31-40	164	36.4
	41-50	129	28.6
	51-60	47	10.4
	60 and above	15	3.3
	Missing values	16	3.5
Gender	Female	189	41.9
	Male	239	53
	Missing values	23	5.1
Income	Below 1000 \$	141	31.3
	1000-3000 \$	186	41.2
	3001-6000 \$	76	16.9
	6001-9000 \$	31	6.9
	9001 and above \$	3	.7
	Missing values	14	3.1
Marital status	Married	232	51.4
	Single	128	28.4
	Divorced	64	14.2
	Widow	13	2.9
	Missing values	14	3.1
Education	Primary education	6	1.3
	High school	56	12.4
	Associate (2 years)	95	21.1
	Undergraduate (4 years)	133	29.5
	Master	107	23.7
	Doctorate	43	9.5
	Missing values	11	2.4
Country	CIS (Common wealth of Independent States)	331	73.4
	Europe	84	18.6
	Other	15	3.3
	Missing values	21	4.7
Treatment	General health check	88	19.5
	Dermatology	43	9.5
	Dental care	63	14
	Orthopedic	76	16.9
	Rehabilitation	30	6.7
	Eye diseases	51	11.3
	Cardiology	27	6.0
	Plastic and Cosmetic surgery	15	3.3
	Other	41	9.1
	Missing values	17	3.8
	Total	451	100

Measures

Well-established scales of previous studies were adopted as the study instruments. Seven-point Likert scale, which ranges from (1) strongly disagree to (7) strongly agree, was used to measure each construct, except the optimist-pessimist scale. Optimist-pessimist scale was measured with four-point Likert scale as in original work of Colligan et al (1994) (1= strongly disagree and 4=strongly agree). Cronbach's alpha coefficients were used to assure internal reliability of measurement.

Trust to clinic scale was developed from the study of Han and Hyun (2015) and measured with three items. *Perceived value* was measured with four items which were taken from the study of Wang (2012). *Behavioural Intention* was measured with six items adapted from the study of Abubakar and Ilkan (2016). *Optimist and pessimist* scale is borrowed from Colligan et al. (1994) which consists of ten optimist and ten pessimist items.

Results

Common method bias

Common method bias can deflate or inflate the relationships among constructs, thus leads to measurement error, i.e., Type I and Type II (Podsakoff et al., 2003). It was assessed by loading all items upon one common factor in confirmatory factor analysis as Podsakoff et al. (2003) suggest. One single factor model did not fit the data well ($\chi^2/df = 10.606$, RMSEA=0.146, GFI=0.537, NFI=0.664, CFI=0.685). It seems that common method bias is not a serious problem and has limited effect on the data set.

Measurement model

Measurement model was evaluated by ensuring the criteria of reliability, convergent validity, and discriminant validity. The Cronbach's alphas of the constructs range between 0.84 and 0.91, which satisfies the recommended cut-off value of 0.7. Composite reliability coefficients of all construct are above 0.90 which ensures the internal consistency reliability of the constructs (Hair et al., 2017). Confirmatory factor analysis was employed for trust, perceived value and behavioural intent constructs. Optimist and pessimist constructs were not included in the CFA because they were used as a moderator. High internal consistency is assured with the high factor loadings of the items in proposed constructs (Fornell & Larcker, 1981) (Table 2). Convergent validity is measured using AVE. The values for all constructs are greater than the 0.50 which means that constructs are capable of explaining more than half of the variance of their indicators (Hair et al., 2017). Discriminant validity can be conceptually defined as the discrimination of the dimensions forming the scales (Nunnally, 1978). For discriminant validity, the heterotrait-monotrait (HTMT) ratio of correlations (Henseler et al., 2015) was applied (Table 3). HTMT values of all constructs meet the maximum threshold of 0.90 (Gold et al., 2001; Teo et al., 2008). The model fit indices exhibit that measurement model is reasonably good fit ($\chi^2/df=3.38$, NFI=0.96, CFI=0.97, RFI= 0.95, TLI=0.97, RMSEA=0.073)

Structural model

Measurement model confirmed that the model can be tested in order to establish the causal relationships among the constructs. In the proposed model, perceived value mediates the relationship between behavioural intent and trust. Maximum likelihood analysis of the covariance matrices was used to analyse the structural model. According to the model fit indices, a satisfactory model fit is ensured ($\chi^2=209.29$, $df=62$, $p=0.000$, NFI=0.963, CFI=0.974, AGFI=0.891, RMSEA=0.073).

Table 2. *Confirmatory factor analysis, composite reliability and average variance extracted*

Construct	Items	Std.Factor Loadings	C.R.	AVE	Cronbach's α
Clinical Trust	I have confidence that this clinic provides the best deal.	0.840	0.95	0.76	0.84
	I feel I can trust this clinic.	0.884			
	I think that medical quality and services at this clinic are of high integrity.	0.886			
Perceived Value	Compared to fee I am asked to pay, Antalya's medical tourism offers value for money.	0.817	0.94	0.69	0.90
	Compared to potential risk I bear, Antalya's medical tourism is worthwhile to me.	0.848			
	Compared to the time away from work/leisure that medical care requires, Antalya's medical tourism worthwhile to me.	0.849			
	Overall, Antalya's medical tourism delivers good value.	0.817			
Behavioural Intention	I predict I will visit Turkish hospitals in the future.	0.810	0.97	0.74	0.91
	I would visit Turkey rather than any other medical destination.	0.871			
	If I need medical service in the future, I will consider Turkish hospitals as my first choice.	0.890			
	I will recommend this hospital to family and friends.	0.878			
	I will recommend this hospital to anyone who seeks my advice.	0.897			
	If I need medical service in the future, I will consider this hospital as my first choice.	0.828			

Table 3. *Discriminant validity - HTMT scores*

	Clinical trust	Perceived Value	Behavioural Intention
Clinical trust	-		
Perceived value	0.89	-	
Behavioural intention	0.90	0.90	-

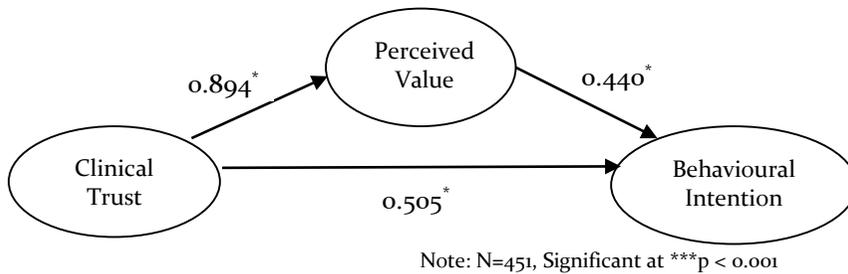


Figure 2. Standardized path coefficients of the hypothesized structural model for the full sample

As reported in Figure 2, standardised path coefficients between trust and behavioural intent (path coefficient=0.505, $p < 0.001$), and trust and perceived value (path coefficient= 0.894, $p < 0.001$) were found positive and significant. Thus, null hypotheses for Hypothesis 1 and Hypothesis 2 were rejected. Perceived value and behavioural intent is associated positively (path coefficient=0.44, $p < 0.001$). Results show a partial mediating effect of perceived value between trust and behavioural intent of medical tourists, rejecting the null hypothesis for Hypothesis 3.

Cluster analysis

Cluster analysis is used to place respondents into groups which are based on similar characteristics and has been used in many studies (Scott & Knott, 1974; Breckenridge, 1989). Total of 12 items were used in cluster analysis after conducting EFA. Five and three items were eliminated from original scale of optimism and pessimism respectively due to low factor loadings of these items. As we want to classify the respondents as optimist and pessimist we used K-means clustering technique which allowed us to have two groups (optimist and pessimist).

Tests of difference were employed to determine if two groups exhibit statistically significant differences from each other (Morton *et al.*, 2017). Out of 12 items, 11 items were found statistically different between the groups (Table 4). This finding suggests that distinction between optimist and pessimist groups have been identified by the analysis.

Multigroup analysis of measurement invariance

Before conducting multigroup SEM, a series of measurement invariance tests should be performed to ensure that optimist and pessimist groups interpreted the scale items in an equivalent manner. We tested configural, metric, and scalar invariance in the hierarchical order using several model fit indices (Milfont & Fischer, 2010).

In order to test the hypotheses of group difference, the condition of no difference in the measurement model but differences in the path coefficients of the structural model across groups must be established. Firstly, a baseline (configural) model is established for multigroup analysis of measurement invariance in which each group model parameters of groups are estimated separately. Moreover, no equality constraints are enforced across groups (Byrne, 2008). To identify the source of noninvariance, configural model fit produces the baseline χ^2 value comparing an increasingly restrictive set of invariance models. An insignificant chi-square difference will be evidence of equivalence between groups (Byrne, 2008).

Configural invariance is met when the basic model structure is invariant across groups. If the data support identical patterns of fixed and non-fixed parameters across groups, the data will support restrictive models. It indicates that participants from different groups conceptualize the constructs in

the same way (Milfont & Fischer, 2010). The results show that configural invariance was established ($\chi^2/df=2.492$, RMSEA=0.058, CFI= 0.967, RMR=0.056).

Table 4. *K-means cluster analysis of optimist/pessimist groups*

Statement	Mean		t-test value
	Cluster 1 (Optimist)	Cluster 2 (Pessimist)	
My relatives are nearly all in sympathy with me.	3.32	3.10	3.11**
Something exciting will almost always pull me out of it when I am feeling low.	3.15	3.12	0.34
The members of my family and my close relatives get along quite well.	3.27	2.98	3.87***
Religion gives me no worry.	3.27	2.83	6.09***
I have no enemies who really wish to harm me.	3.48	2.86	8.39***
I have often found people jealous of my good ideas just because they had not thought of them first.	1.97	3.11	-14.79***
I have met problems so full of possibilities that I have been unable to make up my mind about them.	1.95	3.10	-16.33***
When I am feeling very happy and active someone who is blue or low will spoil it all.	1.62	2.93	-19.32***
I am afraid when I look down from a high place.	1.17	2.41	-14.19***
Someone has been trying to rob me.	1.47	2.94	-21.36***
There is something wrong with my mind.	2.04	3.11	-13.71***
Most of the time I wish I were dead.	1.52	3.56	-27.18***

Note: Levels of significance: *** $p < 0.001$, ** $p < 0.01$

We tested the sample for *metric invariance* by introducing the concept of equal metrics across samples (Steenkamp & Baumgartner, 1998). The factor pattern coefficients were constrained to be equal to test metric invariance. It increased χ^2 from 314.537 to 335.071 with $\Delta df=13$ and $p=0.083$. Given that the χ^2 difference of 6.466 with 13 degrees of freedom was not statistically significant at $p=0.05$, metric invariance was supported. It means that metric invariance across the optimist and pessimist medical tourists sample is supported.

With the metric invariance support, *scalar invariance* was tested by constraining all items' intercepts to examine if the item intercepts are equal across groups. Mean differences in the latent construct capture all mean differences in the shared variance of the items. Group differences in the means of the observed items must arise from the differences in the means of underlying constructs. If this invariance condition is not satisfied, it may indicate potential measurement bias. Once the intercepts of items are constrained to be the same for all groups, scalar invariance then can be tested (Hong *et al.*, 2003). Results indicate that scalar invariance was supported ($C_{min}=19.066$, $df=23$, $p=0.697$).

Multigroup analysis of structural models and hypotheses testing

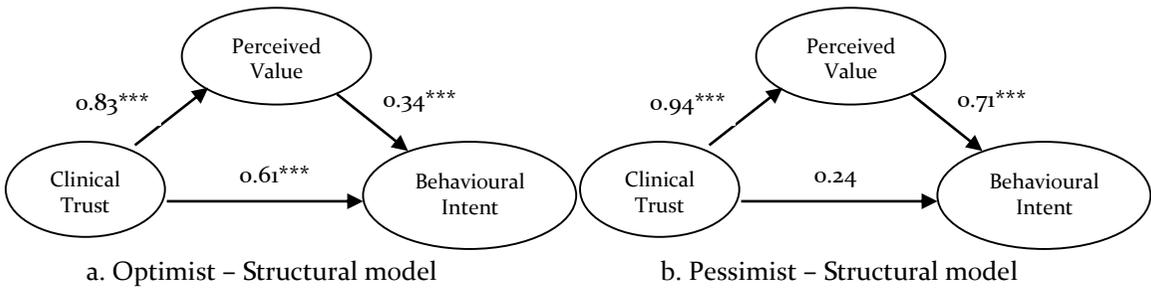
Multigroup invariance analysis was used to examine whether the relationships among trust, perceived value, and behavioural intentions vary across the optimist and pessimist medical tourists. Unconstrained model was firstly examined. The fit indices of the model are $\chi^2=308.953$, $df=124$, $p=0.000$,

GFI=0.897, NFI=0.947, CFI=0.974, TLI=0.959, RMSEA=0.058. Fit of the model is supported by the fit indices. Therefore, the model can be used as a baseline model in order to test the invariances.

Table 5. Multigroup invariance tests between baseline model and constrained model

Model	χ^2	df	χ^2/df	CFI	GFI	RMSEA	$\Delta\chi^2$	Δdf	p-value
1. Baseline model	308.95	124	2.492	0.967	0.90	0.058			
2. Structural weights model	334.52	137	2.442	0.965	0.89	0.057	25.6	13	0.019
3. Clinical trust → Perceived value	322.59	125	2.581	0.965	0.89	0.059	13.6	1	0.000
4. Clinical trust → Behavioural intent.	312.27	125	2.498	0.967	0.90	0.058	3.32	1	0.069
5. Perceived value → Behavioural intent.	311.61	125	2.493	0.967	0.90	0.058	2.66	1	0.103

As it is summarised in Table 5, differences were found significant in path estimates of optimist and pessimist groups ($\Delta\chi^2 = 25.57$, $p=0.019$) between the baseline model (Model 1) and restricted model (Model2). In order to identify which paths differed, additional chi-square difference tests were done. The path from trust to behavioural intent can be considered significantly different between two groups ($\Delta\chi^2=3.32$, $p=0.069$).



Note: Significant at *** $p<0.001$

Figure 3. Standardized path coefficients of structural models for optimist and pessimist groups

To note that this path is significant for optimist (path coefficient is 0.61, $p<0.001$) but insignificant for pessimist (coefficient is 0.24, $p>0.05$) (Fig.3). The path from trust to perceived value was significantly higher in the pessimist group (path coefficient is 0.94) than the optimist group (path coefficient is 0.83) at $p<0.001$ ($\Delta\chi^2=13.64$). Interestingly, this result is opposite to what was hypothesized in H5. It was supposed that the relation between trust and perceived value will be stronger for optimists than the pessimist but this relation was found stronger for pessimists. No significant differences is found for the path from perceived value to behavioural intent between optimist and pessimist groups ($\Delta\chi^2=2.66$, $p>0.10$). Results show that null hypothesis is rejected for Hypothesis 4 but not rejected for Hypothesis 5 and Hypothesis 6.

Conclusion and discussion

Examining what affects the behavioural intentions of medical tourists is vital not only for healthcare facilities, which try to increase their share of international medical tourist, but also for destinations that want to add health tourism into their product portfolio, especially to overcome the seasonality problem

of tourism. In this regard, resort destinations have been increasingly pursuing such strategy. Thus, a popular resort destination was chosen in this study as a location where health tourism, mainly the medical tourism, is supposed to be not an alternative, but a complementary of 3S tourism. Accordingly, this study aimed to shed light on these neglected phenomena in the literature.

Theoretical implications

This study makes contribution to the literature in various aspects. Model proposed in this study was tested with adequate statistical methods and the model was approved. Results show that clinical trust and perceived value positively affect the behavioural intentions of medical tourists. In addition, clinical trust affects the perceived value and perceived value played a mediating role between clinical trust and behavioural intent. Results support the findings revealed by other studies (e.g., Saiprasert, 2011; Wang, 2012; Wang & Wang, 2013; Han, 2013; Crooks *et al.*, 2015; Han & Hyun, 2015; Lu *et al.*, 2016; Wu *et al.*, 2016; Abubakar & Ilkan, 2016; Aljumah *et al.*, 2017).

The findings support the study of Han and Hyun (2015), where the researchers also reported positive effect of clinical trust on the intention to return. However, the findings partially support the study of Wu *et al.* (2016), in which the hypothesis of the effect of trust on behavioural intent was rejected and the effect of perceived value on behavioural intent was found positive. On the other hand, they concluded that patient satisfaction, trust and perceived value in their models explain 99.3% of the variance in behavioural intent.

An important contribution of this study is the moderator that is used. In this study, a moderator variable-optimist/pessimist- was added to the model which was not seen in the literature to our knowledge up to now. As it is seen from the literature, optimistic people tend to think and behave more positively than the pessimists. Moreover, there are evidences that general health status is highly related to the optimism, with optimism and quality of life being positively associated (Finck *et al.*, 2018). Thus, adding this moderator to the model, and investigating whether this is the case for medical tourists as well, is one significant contribution of this study.

To determine the optimist and pessimist tourists, cluster analysis was applied first and then a multigroup analysis was implemented to examine if there are any differences between the evaluations of optimist and pessimist medical tourists. Hypotheses were developed with the proposition that relationships in the model are stronger for the optimist groups than the pessimist group, which is in parallel with the literature. However, some contrasting results have been found. Hypothesis 4 was accepted, while hypotheses 5 and 6 were rejected. It means that the relationship between clinical tourists and behavioural intent is higher in optimist medical tourists than the pessimist medical tourists as hypothesized. However, the relationship between clinical trust and perceived value ($r=0.94$, $p<0.05$) is higher for pessimistic medical tourists, which is exactly the opposite of what was hypothesized. It can be referred from this result that once the pessimistic people trust the medical facilities, their behavioural intention might be stronger than the optimists. However, more proof is needed to generalize this finding.

Managerial implications

This study provides the relations between the emotional variables (clinical trust, perceived value) and behavioural intent that are important in terms of marketing and management of medical tourism. Determining the emotional state of medical tourists will provide concrete information for managers to better understand the behavioural intentions of patients. However, it should be taken into consideration that clinical trust, perceived value, and optimist-pessimist affect can vary from person to

person, physical and social environment, and the patient's medical process. The results of this study show that increasing the clinical trust and perceived value of medical tourists will show positive behavioural intent. It is also found that patients with high levels of optimistic readiness will have a positive impact on the behavioural intention of clinical trust. Therefore, the need to keep and improve the optimistic effect of the patients will provide important advantages for the managers during the treatment process and the tourism operations. Managers of medical tourism businesses should be aware of medical tourists' behaviour and should definitely exhibit a holistic approach. Medical tourism is not only limited to the operation process, but also understanding the psychological state and social environment of the patients. Hence, medical tourism staff should be trained so that the medical tourists feel themselves in a positive psychological state.

Some recommendations can be given to destination managers. It is especially recommended for those destinations, which want to benefit from medical tourism as their primary or complementary product, to take necessary actions to increase the trustworthiness of clinics in the destination, e.g., motivating the clinics to get international accreditation, and value they offer to customer, e.g. increasing high quality services. A tourist who has already visited a destination and got any treatment from a health care facility in destination is a potential future medical tourist. Therefore, advice systems based on medical tourist trust should be developed. With the right strategies, resort destination, attracting a large number of tourists annually, like Antalya, can use this potential for developing its medical or health tourism. Destination Management Organisations (DMOs) can use proactive strategies for those tourists who used healthcare facilities in destination, in order to encourage them to revisit the health care facilities of destination when they have any health problem in the future or to recommend it to their friends/relatives. In order to make medical tourists feel good in their treatment process, medical tourism stakeholder, e.g., medical facilities, hotels, airlines and transportation companies, should cooperate with each other and offer customized services for the medical tourists, due to different expectations and specific needs they have.

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