

Diasporic Medical Tourism: examining tourists' profiles, antecedents and behavioural intention

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Abstract

This study focuses on diasporic medical tourism (DMT), an offshoot of migration-led tourism and medical tourism. There has been growing recognition of the significance of a diasporic dimension of medical tourism worldwide, yet little is known about these travellers, especially quantitatively. This paper examines the antecedents and behavioural intention of the DMT by applying the extended Theory of Planned Behaviour. A cross-sectional survey was conducted in three European countries (Belgium, the Netherlands, and Luxembourg) among the Polish diaspora (N=1,288), which constitutes one of the largest migrant populations in Europe. The results analysed via PLS-SEM demonstrated that the model explained 53 % of the variance ($R^2 = 0.527$, $Q^2 = 0.392$), indicating a good model fit. Constructs of Attitude ($\beta = 0.329$), Subjective Norms ($\beta = 0.277$), Perceived Behavioural Control ($\beta = 0.112$), and Past Behaviour ($\beta = 0.302$) were all statistically significant. The caring/affective/trusting relationship with doctors, familiarity with the system, second opinion, encouragement/recommendation from referents, and facilitating factors influenced the decisions to undertake the DMT. 'Committed' and 'Contended' travellers accounted for 76% of all surveyed diasporic medical travellers, indicating the significant potential of those 'hidden' medical travellers. Diasporic medical tourism was compared to foreign medical tourism. This study provides theoretical/practical implications and contributes to the research on medical tourism, diaspora tourism and the interrelation between tourism and migration, specifically in the European context.

Keywords: diasporic medical tourism/travel (DMT); medical tourism motivations; diaspora tourism; migration-led tourism (MLT), visiting friends and relatives (VFR) tourism; transnational health

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1. Introduction

Migration-led tourism (MLT) has become increasingly important in a globalised world due to the growing number of migrants across the globe. There were 281 million international migrants worldwide in 2021, three times more than in 1970. They account for 3.6% of the global population (McAuliffe & Triandafyllidou, 2021). For the first time in history, the number of international migrants outpaced the growth rate of the world's population (United Nations Department of Economic and Social Affairs, 2022). Europe hosted the most significant number of international immigrants (87 million) (McAuliffe & Triandafyllidou, 2021).

The two most significant manifestations of globalisation have been tourism and migration, and both phenomena have become interconnected, owing to the increasing demand for travel among dispersed family members and friends (Griffin & Dimanche, 2017; Williams & Hall, 2000). The dynamic environment of changing migration and tourism flows needs to be acknowledged and, even more importantly, understood in its interconnectedness (King & Dwyer, 2015). The so-called 'world on the move' has caught special attention in recent years, and one of its aspects – health – has received a particular focus (Abubakar *et al.*, 2018; Wickramage *et al.*, 2018). Given those developments at the intersection of tourism, migration and health, we have chosen the medical tourism (MT) field to obtain insights into this interconnectedness.

The literature has denoted the existence of diasporic medical tourism (DMT) in various countries across the globe (in-depth review of Kim *et al.*, 2021; Mathijssen & Mathijssen, 2020; Villa-Torres *et al.*, 2017). Nevertheless, the DMT category has been understudied, most likely given the complexity-to-document 'visiting friends and relatives' (VFR). Little is known about DMT size, characteristics and behaviours (Morrison *et al.*, 2000; Ramos & Cuamea, 2023). John Connell called DMT tourists 'hidden tourists' because they were "largely undocumented and ignored in publicity, yet they have effectively pioneered MT in some countries" (Connell, 2013, p. 45).

Targeting foreign travellers in medical tourism used to be a dominant option. However, nowadays, over 60 countries actively promote MT (Edelheit, 2019), and competition has become fierce. Therefore, tapping the potential of diasporic patients may offer a competitive advantage for all those countries with emigration-intense populations. In 2019, 'VFR, health, religion and other' constituted the second-largest category of international inbound tourism and accounted for 28% of international tourist arrivals (World Tourism Organization [UNWTO], 2021), up from 20% in 1998 (UNWTO, 2000). This segment accounted for 25% of all inbound travel to Europe, while in non-EU destinations, it represented a much larger share (43%) (UNWTO, 2016). The International Organization for Migration ([IOM], 2020, p. 4) clearly stated that "measuring all of these economic investments at all levels and in all communities of your country is crucial".

Initially, it was assumed that DMT was driven mainly by cultural factors (Connell, 2011), probably because VFR – which impacts DMT – is driven by a goal of strengthening social networks and cultural values and norms (Duval, 2004). DMT was left to its development and happened organically. There was no need to influence it as it presented a stand-alone 'diaspora effect' (Esiyok *et al.*, 2017). Despite the global growth in the number of travelling migrants and dispersed families and friends, research on the DMT has been scarce, and governmental institutions, tourism organisations, and academia often misunderstood the phenomenon (Mathijssen, 2019). The scant research on the DMT for the most part was conducted through a qualitative approach (Kim *et al.*, 2021; Mathijssen & Mathijssen, 2020) and seldom in Europe.

Consequently, this research aimed to fill the gap by quantitatively measuring behavioural intention and motivational factors in DMT. This paper has been a continuity of qualitative research conducted in

Belgium on Polish diaspora medical tourists (Mathijssen, 2019). Our study had two objectives. First, we sought to understand the importance of the DMT segment, the diasporic medical traveller profile and whether DMT could be promoted by marketing activities and adequate policies, in juxtaposition to the opinion that it only happened spontaneously. That would undoubtedly contribute to pursuing new avenues for the medical tourism market, which has become very competitive over the past years. Second, we aimed to understand how these travellers were different or similar to foreign medical tourists in their motivations and behavioural intentions. Specifically, we investigated if they were solely driven by cultural or a more complex set of motivational factors. Therefore, we proposed to test a motivational framework based on the well-established Theory of Planned Behaviour (TPB). This research was conducted on the Polish diaspora in Europe - given that Polish migrants were among the most mobile citizens in the European Union (Eurostat, 2021) - in three countries of Europe: Belgium, the Netherlands and Luxembourg.

2. Literature Review

Medical tourism has been one of the fastest-growing tourism sectors worldwide (Shoukat *et al.*, 2023; Wang *et al.*, 2020) and, in simplest terms, includes all those travelling abroad to obtain medical treatment. It is often portrayed as the flow of affluent, foreign, patients from high-income countries to low or middle-income countries. However, given the increased people mobility around the world (large migrant, sojourners and expatriate populations), the diasporic dimension of medical tourism became increasingly important and formed a sub-segment of medical tourism (Connell, 2013; Hall, 2017; Horsfall, 2019; Mathijssen & Mathijssen, 2020; Ormond & Lunt, 2019).

2.1. Migration-led tourism (MLT)

UNWTO (2009) estimated that 20% of the tourism economy was related to migration, and between 15% and 25% of international tourist arrivals were migration-driven (between 210 million and 350 million international tourist arrivals). It was suggested that migration might be behind the most significant tourism flows in the world (UNWTO, 2009). The growth of one of the most important tourism markets - VFR - was proven to be strongly correlated with the increase in migrant families dispersed across countries (Parr *et al.*, 2000).

Travelling migrants have been classified in international statistics under the category of VFR or MLT (UNWTO, 2009). Well-respected international organisations referred to it as 'diaspora tourism' (IOM, 2020) or 'expat tourism' (UNWTO, 2009). In the literature, it appears under different names. Yin *et al.* (2022) contextualised MLT as 'immigrant tourism'. Mathijssen (2019) phrased it as 'diasporic tourism' and Moon *et al.* (2019) as 'immigrant VFR tourism'.

The UNWTO (2009) estimated that in countries with net emigration, 'home visits' by non-resident migrants represent at least 15% and, in some cases, even 70% of total inbound tourism. To name a few examples: in Australia, VFR accounted for approximately 48% of the total overnight tourism market (Backer, 2012); in Mexico, VFR accounted for 28% (Damián & Ramírez, 2020); 61% of overseas trips for the Koreans residing in New Zealand were to Korea (primarily for VFR as in Kang & Page, 2000); and 40 to 45% of New Zealand visitors to Samoa were VFR (Hall & Duval, 2004).

The interdependencies between tourism and migration are not new, but their scale, intensity, and geographical scope have increased significantly over the last decades (Iarmolenko, 2015). VFR is the outgrowth of migration, which is a prerequisite for VFR based on friendship and kinship networks. Three mechanisms can be differentiated in the link between tourism and migration: migration leading to tourism (MLT) by stimulating VFR, the relationship running from tourism to migration (tourism-led

migration, TLM), and finally, a bidirectional causal link (Williams & Hall, 2002). In our analysis, we will concentrate solely on the first mechanism.

We define return visits of migration-led tourists after Duval as “periodic but temporary sojourns of members of diasporic communities to their external homelands” (Duval, 2004, p. 51). The author suggests that three elements characterise return visits: 1) the existence of extensive social and cultural foundations in the country of origin (CoO), 2) return visits function as a means to renew, restate, and solidify familial and social networks, and 3) the involvement of individuals who are part of a larger (self-described) diasporic community formed from past migration.

Migrants who maintained social ties with relatives in their CoO were likelier to undertake diasporic tourism (Jang, 2017; Van den Broek, 2021). This link between diasporic communities and VFR was facilitated by improvements in information and communication technologies. Easily accessible and cost-effective networks have turned the diaspora market into one of the most flourishing tourism target markets (UNWTO, 2009). VFR tourism extended the season - curbing the issue of seasonality - and contributed to repeat visits (Ramachandran, 2006).

A rare systemic review conducted on diaspora tourism (Chen *et al.*, 2023) underlined that diaspora had the potential to become a large and growing research field with various theoretical frameworks. The review highlighted that developments in diaspora tourism occurred in four main strains (diaspora motivations, ancestral heritage, identities and transnationalism, diaspora communities), and diaspora motivations were clearly a distinct and separate subject (Chen *et al.*, 2023). However, despite its substantial volume and activity, the VFR tourism and diaspora tourism markets have received little attention from academia and business (comprehensive analysis in Backer & King, 2015; Chen *et al.*, 2023). Even more so, for diaspora tourism motivations, the review of Chen *et al.* (2023) named only three studies: one for Europe (Mathijssen, 2019), one for China (Meng *et al.*, 2019) and one for Africa (Otoo *et al.*, 2021).

Reasons for that lie most probably in the inconsistency and interchangeability of definitions (i.e. VFR, migration, diaspora, nostalgia, ancestral or roots tourism) and data and the diversity of situations. All these gaps make it challenging to quantify the links between tourism and migration (UNWTO, 2009; Williams & Hall, 2002). Additionally, a division of institutional responsibilities – tourism and migration managed by different governmental bodies – makes managing MLT challenging but not impossible.

2.2. Diasporic medical tourism

There has been a growing interest in the scientific literature on the impact of diaspora tourism on four critical areas of everyday life: healthcare, well-being, migration, and economy (a systemic analysis of diaspora tourism by Liu *et al.*, 2023). Many diaspora members visited their countries for healthcare and medical treatment, what Horsfall (2019) coined as ‘*health-returning*’. DMT has become a recognised subsegment of medical tourism (Connell, 2013), and it has been recommended to understand further those diaspora subsegments (Du Preez & Govender, 2020). DMT was defined by Mathijssen (2019, p. 374) as the “travel of migrants to their countries of origin with the intention to use and access healthcare services (HCS) through their own volition”. Migrants who maintained social ties with relatives in their CoO were likelier to undertake DMT (Jang, 2017; Van den Broek, 2021).

Given the multidisciplinary nature of the DMT, scientists have researched it from the perspective of various scientific disciplines, such as tourism, management, migration, mobilities, global health, sociology, and medical anthropology. Sometimes, a broader context of transnationalism and health, or transnationalism and migration, has been applied (Jang, 2017; Lunt *et al.*, 2016; Wang & Kwak, 2015).

The existing evidence suggested that the diaspora might have even accounted for the majority of medical travellers in certain countries, such as Colombia, Guatemala, India, Iran, Jordan, Lebanon, Malta, Mexico, Poland, the Philippines, Turkey, or given regions, e.g. Taiwan (Connell, 2011; Glinos *et al.*, 2010; Horsfall, 2019; Snyder *et al.*, 2016). Esiyok *et al.* (2017) asserted that the diaspora population was the largest (in volume) group of medical tourists in Turkey and conceptualized it as the '*diaspora effect*'. Indeed, few scientists attempted to quantify DMT volume to understand the scale of this travel behaviour. For example, the data from Troccoli *et al.* (2022) stipulated that around 60% of Polish immigrants have used HCS in Poland since becoming residents of the UK, while Horsfall (2019) estimated that medical tourists from the UK to Poland were primarily nationals of the country, with the number rarely under 75%. In the Netherlands and Denmark, the highest HCS utilisation by immigrant groups in their CoO was reported among the Turkish diaspora: respectively 21.3% in the Netherlands (Sekercan *et al.*, 2014) and 26.6% in Denmark (Nielsen *et al.*, 2012).

Contextually, European research was under-represented in this investigation. Among a few rare studies, most of the research was conducted in the Netherlands (four studies in review by Kim *et al.*, 2021), followed by the research in the United Kingdom and Denmark (review of Mathijssen & Mathijssen, 2020). Most of the current research on DMT has been conducted on the Mexican (and occasionally South Korean) population residing in the United States (Kim *et al.*, 2021; Mathijssen & Mathijssen, 2020). Notably, qualitative research prevailed, and quantitative evidence was very scarce (systemic review by Villa-Torres *et al.*, 2017). Kumar (2023) highlighted that the diaspora was very important in the research on patients' access to healthcare, but data was "sparse and fragmented and needed more attention".

2.3. *Diasporic medical tourism and a detour around healthcare systems*

Counterintuitively, DMT occurred frequently in the direction running from the countries considered to have well-performing healthcare systems to those whose healthcare systems were categorised as under-resourced and underperforming. For example, in Horsfall (2019), Polish diasporic medical consumers travelled from the U.K. to Poland; in Şekercan *et al.* (2014), Moroccan immigrants travelled from the Netherlands to Morocco; in Nielsen *et al.* (2012), Turkish immigrants went from Denmark to Turkey.

The explanation could have been that diasporic medical travellers used HCS in the CoO in a complementary fashion rather than as an alternative to their healthcare usage in CoR (demonstrated by Kempainen *et al.*, 2018; Nielsen *et al.*, 2012; Troccoli *et al.*, 2022), as a form of '*top-up care*' (Osipovič, 2013), or as a '*safety valve*' (Horton & Cole, 2011). DMT has been chiefly associated with healthcare provisions based on out-of-pocket fee-for-service (Botterill *et al.*, 2013). However, the DMT happened within the institutional context of various health policies and systems. A plausible explanation for this may lie in the theory of acculturation. It describes a process in which an individual adopts and adjusts to a new cultural environment. The acculturative stress theory (Berry, 2005) refers to the feeling of tension and anxiety when one needs to adapt to the orientation and values of the dominant culture. This stress can affect health, access to health care, and attitudes towards health (Chun *et al.*, 2003). In this situation, DMT might be a coping mechanism for all tensions related to access to medical services (in Berry, 2006, it is a problem-focused coping mechanism).

In our research context of Benelux countries, the health coverage was universal (Belgium 99%, Netherlands 99.9% and Luxembourg 91%) and at a remarkably satisfying level of health service quality. The latest research on this subject (Organisation for Economic Co-operation and Development [OECD], 2021) indicated that the highest level of satisfaction with available HCS was in Norway (93%), Belgium (92%), and the Netherlands (92%) (and only 26% for Poland). The Health Care Index ranked Belgium 11th out of 89 countries on the overall quality of its healthcare system (Dimitropoulou, 2023). The Netherlands ranked 7th, and Poland 59th.

Additionally, voluntary health insurance (VHI) coverage was high, allowing individuals to claim 100% of their healthcare expenses. The VHI was prevalent in the Netherlands (83% and exceeded the EU average) and covered secondary medical costs, such as dentistry, long-term physiotherapy, vision care, alternative medicine, and additional post-natal care (Sagan & Thomson, 2016). Two-thirds of the population in Luxembourg also purchased a VHI and 97.6% in Belgium. Some employers also provided supplementary health coverage as part of their employee benefits package, i.e. The Joint Sickness Insurance Scheme (JSIS) offered to employees of European institutions and their family members (over 80,000 people in 2015).

Belgium, Netherlands and Luxembourg belonged to the same healthcare cluster of Central and Northern European Countries according to the European healthcare systems typology developed by Ferreira *et al.* (2018). In Belgium and Luxembourg, freedom of choice was an essential characteristic of the health system. Patients could consult any general practitioner or specialist without a referral (no 'gatekeeping' procedure). In Belgium, reimbursement for treatment costs was slightly higher with a referral. However, in the Netherlands, a strict 'gatekeeper' system (the person in charge of a patient's treatment, also concerning health insurance) was implemented. As a result, family doctors were usually the first point of contact.

In Belgium, most primary health services were subject to some cost-sharing, and there was almost always a deductible (the part of an insurance claim to be paid by the insured). Belgian public health insurance scheme allowed patients to receive between 50% and 75% of reimbursement. Dental care in Belgium was subject to a partial refund. Patients usually paid up to 80% of the price at the counter for medical prescriptions. In the Netherlands, the services which were completely free for patients included family doctor, obstetric or maternity care, and district nursing. In Luxembourg, public health insurance worked on a reimbursement basis (the patient first paid upfront and then was reimbursed), covering 80-90% of overall healthcare costs. There were also caps for reimbursement of dental care and vision. European citizens had a right to access healthcare in any European Union country, following the introduction of the Directive on the application of patient's rights in cross-border healthcare (European Directive 2011/24/EU) transposed by the Member States by the 25 October 2013 (European Parliament & the Council, 2011).

The objective of the Directive was to facilitate access to safe and sound quality healthcare in another EU Member State and ensure patient mobility. The Directive covered healthcare costs, the prescription and delivery of medications, and medical devices. Specific rules to the reimbursement applied, such as i) entitlement to treatment in the home country, ii) level of reimbursement up to the costs of that treatment in the home country, iii) freedom to choose any healthcare provider, whether public or private, iv) prior authorisation from own health system required for some treatments (certain in-patient or highly specialised services), v) medically unjustifiable waiting time for treatment at home.

However, patient mobility under the Directive remained very low (with a significant drop in 2020 due to the COVID-19 pandemic) and had been 'moderately effective' in delivering its objectives (European Commission [EC], 2022). The main challenge impeding the Directive's potential included inadequate patient information and a low level of awareness over patients' rights to cross-border healthcare. Additional issues included disproportionate administrative burdens and uncertainty over healthcare costs abroad and their reimbursement. Importantly, patients needed to pay upfront – a facet of the Directive strongly criticised by patient organisations arguing that it created inequalities in access to healthcare (Stan *et al.*, 2021). Nevertheless, the Directive had acted as a driver for patient rights in general. It contributed to the increased transparency on treatment prices and brought changes in various national health systems that benefitted patients.

2.4. Promoting diasporic medical tourism

Recent evidence suggests that DMT, instead of public and private '*laissez-faire*', can be promoted in this increasingly competitive medical tourism market (Edelheit, 2019) with the diaspora tourism niche gaining popularity (Du Preez & Govender, 2020). Villa-Torres *et al.* (2017) highlighted the research about practices that could facilitate those transnational healthcare-seeking practices, such as advertising 'health packages' tailored for diasporas to attract them to the countries of origin (Wang & Kwak, 2015) and geographical closeness (Horton, 2013; Stan, 2015). Indeed, marketing medical services to this segment has proven beneficial for certain countries. Countries such as Cuba, India, Korea, Puerto Rico, the Philippines, and Taiwan have expressly included diaspora populations in their medical tourism promotional strategies (Connell, 2013). As a result, those countries have benefited from diasporic patients, investment, philanthropy, and volunteerism (Newland & Taylor, 2010). Croatia actively promoted medical tourism to its diaspora in the USA via the Association of Croatian American Professionals (Total Croatia News, 2019). Trinidad and Tobago promoted MT amongst its diaspora by advertising and hosting diaspora events (Hellyer, 2012). Other promotional activities targeting Filipinos living in the USA (Porter *et al.*, 2008), and South Koreans living in the USA and Canada benefited from ethnic networks and community media (Jun & Oh, 2015; Wang & Kwak, 2015). Guatemala also targeted this subsegment to promote its medical services (Snyder *et al.*, 2016).

Marketing activities need to be built on a clear understanding of motivational factors and attuned to specific segments of DMT. Recent developments in segmentation have been based on the frequency of health utilisation (Nnoaham & Cann, 2020). Following those endeavours, in our analyses, we sought to understand if DMT travellers belonged to one of the following categories proposed by the managerial model of Rowley (2005) about the segmentation of loyal customers. We borrowed the naming of the segments from the above model as follows: *Committed* (frequent users), *Contented* (previous engagement, sometimes users), *Captive* (neutral) and *Convenience-seekers* (hardly any time users).

2.5. Motivations for diasporic medical tourism: theoretical framework

Many scholars have attempted to explore salient motivational factors in the overarching medical tourism market; however, no theoretical framework has yet been agreed upon. The researchers applied various existing theoretical frameworks, which served as a starting point for exploration and experimentation. The universal 'Push-Pull' theoretical framework (Crompton, 1979) has been a popular framework explaining why consumers leave their countries and undertake international medical trips (Hanefeld *et al.*, 2014). Motivational theories transposed from tourism or health-behaviour research were applied to MT. The former was represented by, for example, the Iso-Ahola theory (Adams *et al.*, 2015), while the latter was represented by the Health Belief Model (Ban & Kim, 2020).

In recent years, we have seen an increased application of the TPB in medical tourism related to foreign patients. Research on medical tourists with TPB application was conducted solely in Asia: in China (Ming, 2019), South Korea (Lee *et al.*, 2012), and Malaysia (Saragih & Jonathan, 2019). The researchers also explored the extended TPB framework in India, Iran, Malaysia, South Korea, and Taiwan. None of the research has been conducted in Europe thus far. The TPB has been tested in its basic form, extended form, mixed with protection motivation theory, decomposed (DTPB), and for testing MT-related scales (MEDTOUR scale in Ramamonjiarivelo *et al.*, 2015).

In the transnationalism and health domain, the research on motivational factors behind DMT has been frequently compiled into an overarching category of 'cultural proximity' (Connell, 2013; Ormond & Lunt, 2019; Vargas Bustamante, 2019). Hall (2017) referred to them as 'noncommercial' behavioural dimensions which englobed language, culture and family. Glinos *et al.* (2010) called it 'familiarity with the system' combined with 'affordability'.

To our knowledge, none of the previous research in DMT investigated an application of the theoretical framework where numerous motivational factors were tested in their interdependence and complexity to analyse structural relationships. Therefore, we propose to model DMT motivation based on the TPB, which has demonstrated its predictive value in tourism (meta-analysis of Yuzhanin & Fisher, 2016). Furthermore, the meta-analysis of McEachan *et al.* (2011) summarised that TPB was also an appropriate predictor of health-related intention and behaviour, explaining 40% - 49% of the variance in intention. According to the authors of the TPB (Fishbein & Ajzen, 2010), behavioural intentions indicated a person's readiness to perform a behaviour; the more potent the intention was, the more likely the behaviour would be performed.

2.6. Hypotheses development

In the Theory of Planned Behaviour (Ajzen, 2020; Fishbein & Ajzen, 2010), three significant factors guided behavioural intentions, namely, attitudes towards behaviour (AT), subjective norms related to behaviour (SN), and perceived behavioural control (PBC), leading to the formation of behavioural intention (BI). Therefore, behavioural intention (BI) was a multiple linear regression function of AT, SN and PBC, as follows:

$$BI = w_1A + w_2SN + w_3PBC$$

where w_1 to w_3 are empirical weights.

In the current formulation of the TPB, favourable AT and SN motivated engagement in the behaviour, yet concrete action was taken when PBC was sufficiently strong (Ajzen, 2020). Furthermore, the founders of TPB argued that people tended to approach different kinds of behaviour in much the same way, with the same limited set of constructs (Fishbein & Ajzen, 2010).

2.6.1. Attitudes towards diasporic medical tourism

Fishbein and Ajzen (2010) understood *Attitude* as a tendency to respond to the behaviour with a certain degree of favourableness or unfavourableness (whether the person favours doing it). Hence, it was a function of readily accessible (salient) beliefs about the consequences of the behaviour, termed 'behavioural beliefs'. The principle of compatibility (Ajzen & Fishbein, 2008) has been strongly recommended to maximise the predictive power of attitudes. It implied that attitude and behaviour were measured at the same level of specificity (specific attitudes than general ones) (Ajzen, 2020). The strength of each accessible belief (b) was multiplied by the subjective evaluation (e) of the outcome or experience, and the resulting products were summed. A person's attitude (AT) was expected to be directly proportional (α) to this composite belief index. The following equation represents the Attitude in the expectancy-value model:

$$AT \propto \sum b_i e_i$$

Previous research on MT concerning foreign patients had found significant positive results between attitudes and intention to undertake MT, and AT was identified as the most vital determinant of intention (Lee *et al.*, 2012; Ming, 2019; Saragih & Jonathan, 2019). Lee *et al.* (2012) demonstrated that AT was a positive determinant in predicting Japanese tourists' intention to undertake MT for i) health treatment and ii) beautification treatment. Japanese tourists believed that MT for health treatment in Korea would enable them to receive immediate treatment, with extra care, using the latest technology, by a highly professional team, at significant cost savings, and all that with the additional benefit of food tourism. Martin *et al.* (2011), creators of the MEDTOUR scale, concluded that while the cost might have been a significant factor in MT, attitude determined which alternatives to consider. Without a positive attitude, this option of MT abroad would not have been considered. Following those results, we postulated the following hypothesis:

H1: *Attitude (AT) toward DMT is positively associated with behavioural intention (BI) to undertake DMT.*

2.6.2. Subjective norms about diasporic medical tourism

Fishbein and Ajzen (2010) saw *Norms* as perceived social pressure to perform (engage in or not) a given behaviour. It referred to a person's perception that 'important others' expected a behaviour performance (or non-performance). The *injunctive* normative beliefs (perceptions of what should be done) and *descriptive* normative beliefs (perceptions of whether others were/weren't performing a given behaviour) led to the formation of norms. However, it was not enough to know the above if the person was not motivated to comply with the referent. Fishbein and Ajzen (2010) recommended integrating the *motivation to comply*. It was assumed that normative beliefs, combined with the motivation to comply with the different referents, determined the prevailing subjective norm, as follows:

$$SN \propto \sum n_i m_i$$

The strength of each subjective norm (n) was multiplied by the motivation to comply (m) with the subjective norm, and the resulting products were summed.

The subjective norm was statistically significant in most of the research related to the medical tourism of foreign patients (Chaulagain *et al.*, 2021; Lee *et al.*, 2012; Liang *et al.*, 2019; Saragih & Jonathan, 2019; Seow *et al.*, 2017). Moreover, in two instances (Lee *et al.*, 2012; Saragih & Jonathan, 2019), SN presented a more significant direct effect on BI than AT and PBC. In Lee *et al.*'s (2012) research on Japanese MT travellers, SN (of friends, family, acquaintances, and doctors) was the most important predictor for health treatment MT. The authors attributed this to Japan's collectivist culture. Saragih and Jonathan (2019) argued that Indonesian patients travelled to Malaysia for medical treatment based on their friends' recommendations. Only in Ming's research (2019) was SN relatively weak. Following previous learning drawn from MT, we stipulated the following:

H2: *A subjective norm (SN) related to DMT is positively associated with a behavioural intention (BI) to undertake DMT.*

2.6.3. Perceived behavioural control over diasporic medical tourism

Perceived Behavioural Control (PBC) referred to people's perceptions of their ability to perform a given behaviour and control over its performance. Fishbein and Ajzen (2010) conceptualised it as a comprehensive set of accessible *control beliefs* pointing to the factors that may have facilitated or impeded the performance and the *perceived power* of each control belief, as follows:

$$PBC \propto \sum c_i p_i$$

The strength of each perception of the ability to perform (c) was multiplied by the perceived power of the control over it (p) and the resulting products were summed.

In this research, the directions of Trafimow *et al.* (2002) have been followed that introduce a distinction between items that assess the *perceived ease/difficulty* of performing a behaviour and *perceived control* over its performance. People usually acted on their intentions when the AT and SN were favourable and when they had sufficient control over performance. Salient control beliefs might have also been influenced by observations of other people's experiences and second-hand information: the more information we thought we possessed, the greater was our perceived control over performance. Due to the difficulty of measuring actual behavioural control, PBC worked as a proxy in most studies.

In most research on MT in foreign patients, PBC was the weakest, yet still statistically significant, determinant (Chaulagain *et al.*, 2021; Lee *et al.*, 2012; Liang *et al.*, 2019; Saragih & Jonathan, 2019). However, PBC was not statistically significant in Seow *et al.* (2017) and Na *et al.* (2016). The latter was explained by many intangible factors associated with MT.

Following the above and given that diasporic tourists travel to familiar environments, we posited the following hypothesis:

H 3: *Perceived behavioural control (PBC) over DMT is positively associated with a behavioural intention (BI) to undertake DMT.*

2.6.4. Past behaviour with diasporic medical tourism

Additionally, the results of some studies demonstrated that *Past Behaviour* (PB) was the best predictor of future behaviour. Three meta-analyses and a handful of single studies showed that an additional per cent of variance was explained by PB, varying between 9.6% and 13% (Fishbein & Ajzen, 2010). The research showed that intentions and past behaviour had some variance in common that was not explained by the three predictors in TPB (AT, SN, and PBC). Lee *et al.* (2012) pointed to PB in the form of experience and familiarity, which strengthened the intention via positive experiences of Japanese MT who had previously travelled to Korea. Based on the above, we extended the TPB model to include the Past Behaviour construct and postulated the following hypothesis:

H4: *Past behaviour (PB) related to DMT is positively associated with a behavioural intention (BI) to undertake DMT.*

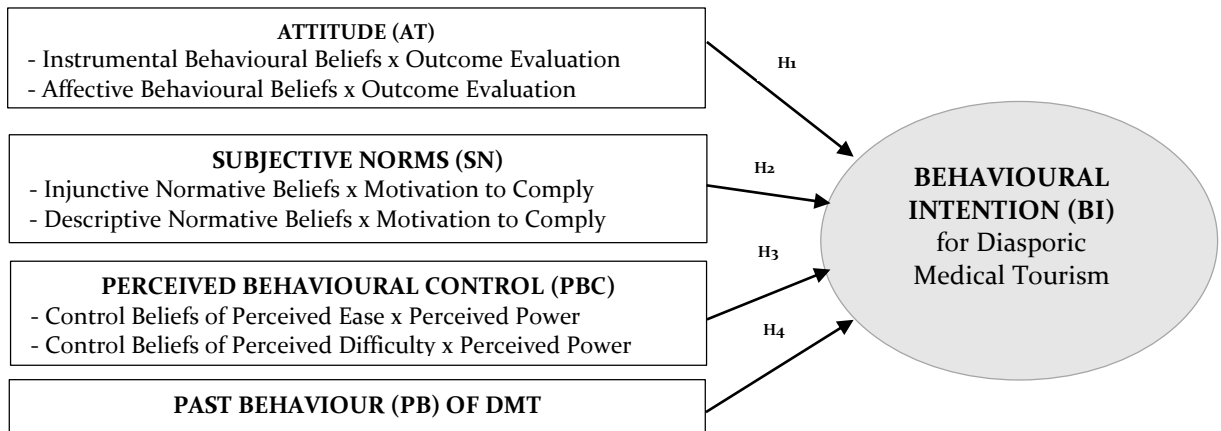


Figure 1. *The proposed TPB extended model (with Past Behaviour) for DMT, with its multiplicative constructs*

3. Methodology

3.1. Measurement and questionnaire development

We applied the TPB survey development guidelines to design the questionnaire (Ajzen, 2019, 2020; Conner & Sparks, 2005) and a 7-point Likert scale (unipolar and bipolar) to assess all items. Each predictor variable was measured directly (e.g. by asking respondents about their overall perception of behavioural control, how easy or difficult it was to undertake behaviour) and indirectly (e.g. by asking respondents about specific aspects of the ability to perform behaviour and power of the control over it). The theory of planned behaviour allows the development of direct and indirect measures of attitude, subjective norm, and perceived behavioural control. Direct and indirect measurements rely on different assumptions regarding underlying cognitive structures. Neither approach is perfect. Therefore, it is

recommended that both be included in the questionnaire, and their scores are expected to be positively correlated (we followed the guidelines by Francis *et al.*, 2004).

All items were DMT-specific and adopted from previous validating research (details in Appendix). Specifically, the authors evaluated AT on ten behavioural beliefs (*strongly disagree - agree strongly*) and corresponding outcome evaluations (*not important at all - very important*). Three normative beliefs related to 1) the closest people (wife/husband/partner/close friend, 2) friends, 3) extended family were applied on a semantic differential (*extremely unlikely - extremely likely*) and estimated in terms of the respondents' motivation to comply (*definitely yes - definitely not*). Control beliefs comprised five facilitators, two barriers to DMT (*definitely not - definitely yes*), and respective power of control beliefs (*strongly disagree - agree strongly*). Last, past behaviour was evaluated indirectly by subjective evaluation of DMT: *How would you rate your frequency of DMT?* (*never - every time*), and directly (number of times DMT was undertaken). Three items measured behavioural intention: 1) *I plan to use*, 2) *I will definitely use*, and 3) *If I have such a health need, I will first seek those services in the country of origin* (*extremely unlikely - extremely likely*).

According to Ajzen and Fishbein (2008), as implied by the expectancy-value model, two measures were obtained for each accessible belief: the likelihood that a considered action would result in a specific outcome (termed either behavioural belief or outcome expectancy) and valence (desirability) of these outcomes (termed either value or outcome evaluation) (Figure 1). That implied that one or another measure was insufficient on its own; there was no logic in predicting attitude from belief strength without knowing if this consequence was considered good or bad and vice versa. Therefore, the measure derived by multiplying outcome expectancies and their evaluations had been defined as the 'indirect' one. Icek Ajzen (personal communication, 7 April, 2021) and his recent article (Ajzen, 2020) suggested using bipolar as well as unipolar scaling and then applying the scaling that gives the better result (i.e., stronger correlation with the direct measure of the main construct (in this research: AT, SN, PBC). Therefore, we conducted an optimal scaling for all our items and chose the scales that produced the highest correlations. They were the following: for AT (bipolar x unipolar), for SN (bipolar x unipolar) and for PBC (unipolar x unipolar).

The questionnaire was translated from Polish to English and back-translated to Polish. The translations were rigorously checked and compared by two independent consultants fluent in both languages. Subsequently, one medical tourism expert, one expert in psychological scales, and two doctoral students reviewed the content validity of the survey instrument. Furthermore, face validity was applied in a questionnaire pre-test (n=33). Finally, we conducted several corrections related to wording, presentation, and scales and retested the questionnaire again.

3.2. *Research population, sampling method, and data collection*

We conducted research on the Polish diaspora, which constituted the most significant number of emigrants in the European Union and the 4th largest in OECD countries (after India, Mexico, and China) (OECD/ French Development Agency, 2019). It was also one of the largest migrant populations in the world: 12th position as per the IOM (McAuliffe & Triandafyllidou, 2021). Three European countries – Poland, Ukraine and Romania – were the most migration-intense countries in Europe (Poland with an estimated 4.82 million emigrants, namely 11.3% of the total population, in 2020). For Poland and Romania, those movements increased significantly after accession to the European Union (in 2004 for Poland).

The research was executed in three European countries: Belgium, the Netherlands, and Luxembourg (so-called Benelux countries) with a significant Polish emigrant population in the Netherlands (144,000

permanent residents and 123,000 temporary residents) and non-negligent populations of Polish migrants in Belgium (70,000 permanent residents and 54,000 temporary residents) and Luxembourg (4,700 residents) (GUS Statistics Poland, 2020). The Netherlands accommodated a third most numerous Polish emigrant populations in Europe, after the United Kingdom and Germany.

Importantly, all three Benelux countries belonged to the same 'healthcare cluster' (environment with lots of similarities) and were ranked as one of the best in Europe. Yet, DMTs still travelled back to their country of origin. Even though the Benelux countries and Poland were not neighbouring countries (no direct cross-border travel), their 'geographic proximity' and ease of travel made it a favourable destination.

The target population of this research was the following: 1) Polish diaspora, 2) had resided in the CoR for at least the past 12 months (had a residence/accommodation), and 3) had, within the past two years, used any kind of HCS in the CoO (had personal experience of DMT, hence a minimum understanding of the problem and not just speculative responses).

The research was carried out from April 2020 until the end of July 2020. We applied respondent-driven and snowball (nonprobability) samplings. Immigrant populations were frequently qualified as hard-to-reach (or hidden) populations due to the difficulty of using standard probability methods. In addition, as migrants were mobile, population registers were often approximative, and accurate sampling frames were missing. Additionally, personal health was framed as a sensitive subject, and respondents were reluctant to respond via standard sampling methods. Previously, snowball sampling had been used in the ethnic minority entrepreneurship literature when working with Polish, Indian, Bangladeshi, and Somali immigrants (Ram *et al.*, 2008; Vershinina & Rodionova, 2011).

We aimed to obtain responses from a heterogeneous population (in terms of age, profession, and residence location). The authors distributed call-to-respond, tailored messages via various channels: email, outdoor adverts (in Polish shops), Polish Tourism Organisation (POT) local offices, Polish Embassies in the Netherlands and Luxembourg, Polish diaspora organisations, European Commission and European Parliament intranet websites, and via social media (diaspora groups on Facebook, LinkedIn, and WhatsApp). Many studies have successfully recruited hard-to-reach populations via social media, i.e. Vershinina and Rodionova (2011) on ethnic minority entrepreneurs who run their businesses illegally, and Loxton *et al.* (2015) on young women for a health survey.

The authors used a web-based, self-administered questionnaire to collect the data with the support of *Survio* (professional online software). The software allowed setting up an option of 'no missing values' (highlighting in red what was omitted) and blocked multiple answers from the same device, ensuring the data was not inflated.

Subsequently, the data was cleaned, removing responses from other countries of residence, wordy descriptions, and failure to pass screening questions. Finally, we ran an analysis to detect the outliers, verified each individually, and removed 53 with 'z scores' of 2.78 (above the acceptable level of 2.68). They represented abnormal observations, continuous extreme responses, and abnormal travel behaviour (unclear status of the CoR). Thus, the total number of respondents retained for subsequent analysis was N=1,288.

3.3. Data characteristics

For our analysis, we used the structural equation modelling (SEM) that belongs to so-called second-generation statistical techniques that followed the first-generation techniques (regression-based approaches such as multiple regression, logistic regression; analysis of variance; techniques such as

exploratory and confirmatory factor analysis, cluster analysis, and multidimensional scaling) (Hair *et al.*, 2017). Structural equation modelling is a multivariate statistical analysis technique used to analyse structural relationships. We chose the partial least squares SEM (PLS-SEM) method appropriate for exploratory and confirmatory research (Hair *et al.*, 2019) and conducted our analyses with *SmartPLS3* software.

Before analysing the data, we examined data normality. In some instances, there was high skewness (from -2.424 to 2.855) going beyond an acceptable range (-1.96, 1.96). Our data also presented a leptokurtic curve with items ranging from -1.126 to 12.372. A Kolmogorov-Smirnov test indicated that most of our items did not follow a normal distribution, $D(1,288) = <0.128 - 0.254>$, $p < 0.001$, which was one of the reasons we chose to conduct partial least squares structural equation modelling (PLS-SEM). Our data contained responses from three countries: Belgium (BE: 54%), the Netherlands (NL: 37.5%), and Luxembourg (LUX: 8.5%). Women were significantly overrepresented in our research (in all three countries). As guidance, *StatBelgium* data reported that Polish female immigrants in Belgium accounted for 53% of all immigrants (Derwae, 2020). Therefore, we applied post-stratification weights (% stratum in population / % stratum in a sample). Survey weights were essential to avoid bias when estimating population means and to correct the results, following Bollen *et al.*'s (2016) recommendation that this is always a reasonable option if weighting is at no cost. After post-stratification, new weights were 52.5% for women and 47.5% for men (Table 1).

Table 1. Post-stratification weights with 'gender' as an auxiliary variable (based on statistical data from Belgium).

Auxiliary variable	Population N	Population %	Sample n	Sample %	Weight %*	SPSS Weighted data %
Female	37,501	52.57%	1,140	88.50%	0.59	52.5
Male	33,830	47.42%	148	11.49%	4.12	47.5
Σ	71,331		1,288			

* % stratum in population / % stratum in a sample

4. Results

4.1. Socioeconomic characteristics of respondents

The descriptive statistics from the sample profile (Table 2) revealed that they mainly represented a post-accession (EU) migration wave, with an average length of residency in the CoR of 9.5 years. Over 30% of the sample population lived in the CoR between one and five years, 35.6% lived there for more than five up to 10 years, and 28.8% - for more than 10 years but less than 20. The results also demonstrated that diaspora members kept strong ties with the CoO, and three-quarters of the DMT travellers visited their CoO in the past two years frequently or very frequently. The former accounted for 47.5% and travelled between 4 - 6 times, and the latter for 27.4% and travelled between 7 and 20 times. Twenty-four per cent returned to the CoO occasionally (1 - 3 times), and around 1% extremely frequently (over 20 times).

Age-wise, the Millennials (26 - 35 years old) and Pre-Millennials (36 - 45 years old) represented the most significant groups, 42.7% and 30.8%, respectively, accounting for almost three-fourths of the sample. They were followed by Generation X (46 - 59 years old; 17.1%), Generation Z (18 - 25 years old; 7.1%) and a few of Baby Boomers (above 60 years old; 2.3%). The results aligned with the data from *StatBelgium*, which reported that the Poles in Belgium aged 18-64 population accounted for 97.3% (Derwae, 2020). The data revealed that DMT households were relatively small, with 41% declaring having no children and 51.3% having one or two children. Yet, most DMT travellers were in marriage/partnership (over 70%), 18% were single, and 11.1% were divorced/widowed/separated.

In terms of education, over 50% of respondents had secondary education, and around 49% had higher education. Those findings indicated that our sample data represented the latest trends of Polish emigration in the Netherlands, based on the National Bank of Poland report (2019) conducted on Poles working abroad, which noted that new immigrants were much better educated than overall Polish immigrants in the Netherlands.

The data showed that the respondents were in the most considerable part 'Employed' (77.6%), followed by 'Self-employed' (9.2%), 'Unable to work/retired' (5.5%), 'Unemployed' (6%) and 'Students' (1.7%). This data was also in line with the report of the National Bank of Poland (2019), which revealed that Polish immigrants in terms of employment status were mostly 'Employed' (83%), followed by 'Unable to work' (9%), 'Self-employed' (5%), and 'Unemployed' (5%). The results also demonstrated that DMT travellers did not have financial difficulties. The respondent's financial situation was self-evaluated as 'Very good' (10.9%), 'Quite Good' (58.3%), or 'Average' (29.2%).

Table 2 *The sample profile (N=1,288)*

Sample characteristic	N	(%)	Sample characteristic	N	(%)
Country of residence			Employment status		
Belgium	695	54.0	Student	23	1.7
Netherlands	483	37.5	Unable to work/retired/other	71	5.5
Luxembourg	110	8.5	Unemployed	77	6.0
Gender			Self-employed	118	9.2
Female	1140	88.5	Employed	999	77.6
Male	148	11.5	Financial situation (self-assessed)		
Age group			Very badly/badly	20	1.6
18-25 (Generation Z)	92	7.1	Doing average/well	376	29.2
26-35 (Millennials)	550	42.7	Doing quite well	751	58.3
36-45 (Pre-Millennials)	397	30.8	Doing very well	141	10.9
46-59 (Generation X)	220	17.1	Marital status		
above 60 (Baby Boom)	29	2.3	Divorce/separated/widow	143	11.1
Education			Married/partnership	913	70.9
Primary/lower secondary	16	1.2	Single	232	18.0
Vocational/High school	642	49.9	Number of children		
Higher education (BA, MA, PhD)	630	48.9	None	528	41.0
Number of years living abroad			From 1 to 2	661	51.3
From 1 to 3	196	15.2	From 3 and more	99	7.7
From 3 to 5	197	15.3	Healthcare insurance status		
From 5 to 10	459	35.6	Insured:	1278	99.2
From 10 - 15	250	19.4	- in the CoR	1256	97.5
From 15-20	122	9.4	- in both countries	166	12.9
Over 20	64	4.9	- exclusively in the CoO	21	1.6
No. of travels to Poland P2Y			Frequency of DMT		
From 1 to 3	309	24	Every time/Frequently/Usually	295	22.9
From 4 to 6	612	47.5	Sometimes	676	52.5
From 7 to 10	285	22.1	Occasionally/rarely	307	23.8
From 11 to 20	69	5.3	Never	10	0.8
Over 20	13	1.0			

4.2. Diasporic medical tourism service characteristics

The average number of DMT visits was 3.6 times for the past two years. Twenty-three per cent used DMT between five and ten times, and 75% of respondents used it between one and four times. Borrowing from Rowley's (2005) segmentation presented in the literature review, we classified those

who had undergone DMT every time/frequently/usually (in their subjective evaluation) as *Committed*, those who undertook it sometimes as *Contended*, and those who did it occasionally/rarely as *Captive* group. The two most promising groups, *Committed* (23%) and *Contended* (53%), comprised 76% of all DMT. Those with the least engagement in the DMT – *Captive* – accounted for the remaining 24%.

The DMT travellers obtained HCS primarily in private clinics (87%). However, over 21.1% also used state clinics, and 13.8% used state hospitals. Only a tiny fraction (2%) used private hospitals. There was no significant difference in perceptions of the quality of HCS in the CoO and CoR (for the former $Mdn=4$, for the latter $Mdn=5$ on the scale from very negative (1) to very positive (7)).

DMT consumers paid for medical services predominantly out-of-pocket (78%). A certain number of respondents used the European Health Insurance Cards of their CoR (10.1%) or obtained reimbursement from private health insurance of the European Institutions (6.9%) – however, those two processes involved either deductibles or voluntary insurance costs. Almost all DMT travellers had health insurance (Table 2), but specific details are unknown. We did not probe about the details of the insurance type, nor about possession of complementary insurance (e.g. VHI, travel insurance with health benefits, bank insurance with health benefits), or the level of deductibles. Surprisingly, 13% of respondents had health insurance in both countries. Detailed analysis by profession indicated that they were primarily European clerks (possibly secondment from local organisations), workers, domestic helpers, specialists, owners of businesses and transporters. This finding reveals a group of migrant population with double insurance statutes.

4.3. Evaluation of the measurement model

The model assessment was based on Hair *et al.*'s (2019) recommendations. We retained all factors with loadings higher than 0.600 (Table 3). For the AT construct, we retained five items, and five were removed (communication/language, quality of HCS, quality/conditions of HCS, comparable costs and waiting times). For the Subjective Norms, four items were retained, and two were removed. For the Perceived Behavioural Control construct, we kept three items and four were removed (sufficient health insurance, spare time, bureaucracy/procedures, and family's choice of doctor) (Appendix for all items tested).

We also looked at Cronbach's alphas for internal consistency reliability (Table 3), however in the PLS-SEM it tends to provide a conservative and less precise measure (Hair *et al.*, 2019). Moreover, according to Garson (2016), the 0.708 standard was relatively high; for exploratory research, the accepted limit could have been 0.400 for the central factors (PB was 0.558, and PBC was 0.654). Literature suggests using Composite Reliability (CR) and the Jöreskog rho (Rho A) as an additional measure. The former is computed on standardized loadings, and later on unstandardized. The CR values were above 0.800, indicating a good measure (Table 3). The Rho A coefficients were all greater than 0.60 (as per the recommendation of Dijkstra & Henseler, 2015), so high levels of internal consistency reliability have been proven among all reflective latent variables (Table 3). The convergent validity (average variance extracted, AVE) was higher than the recommended 0.500 for all constructs (Table 3).

The Heterotrait-monotrait ratio of correlations (HTMT) confirmed discriminant validity (a measure of non/similarity between latent variables). We ran bootstrapping to test whether the HTMT was clearly smaller than recommended threshold of 0.850 (Hair *et al.*, 2019) (Table 4). Additionally, the constructs' discriminant validity has been established through the Fornell-Larcker Criterion: the square root of each construct's AVE was higher than its correlation with another construct, and each item loaded highest on its associated construct (Table 5).

Table 3. *Measurement model assessment results with retained items*

Variables	Loadings	Cronbach's α	Rho A	CR	AVE
ATTITUDE		0.760	0.777	0.840	0.515
Trust x Outcome evaluation	0.823				
Doctors x Outcome evaluation	0.752				
System x Outcome evaluation	0.611				
Second opinion x Outcome evaluation	0.745				
Lower costs x Outcome evaluation	0.635				
SUBJECTIVE NORMS		0.781	0.780	0.860	0.609
Injunctive Norms Close x Importance	0.880				
Injunctive Norms Friends x Importance	0.794				
Injunctive Norms Extended x Importance	0.788				
Descriptive Norms Close x Importance	0.639				
PERCEIVED BEHAVIOURAL CONTROL		0.654	0.700	0.809	0.588
By-the-by x Perceived power	0.647				
Affordability x Perceived power	0.800				
Convenient transport x Perceived power	0.839				
PAST BEHAVIOUR		0.558	0.645	0.811	0.684
Evaluative Frequency	0.736				
Subjective estimation	0.909				

Table 4. *Results of Heterotrait-monotrait ratio (HTMT) for Discriminant Validity*

Constructs	AT	BI	PBC	PB
Attitude				
Behavioural Intention	0.847			
Perceived Behavioural Control	0.399	0.396		
Past Behaviour	0.581	0.831	0.298	
Subjective Norms	0.635	0.723	0.208	0.457

Table 5. *Results of Fornell-Larcker criterion results for Discriminant Validity*

Constructs	AT	PBC	PB	SN
Attitude	0.717			
Perceived Behavioural Control	0.251	0.767		
Past Behaviour	0.349	0.175	0.827	
Subjective Norms	0.488	0.166	0.233	0.780

4.4. Assessment of the structural model

First, we verified the variance inflation factor (VIF) to assess the structural model. There was no multicollinearity problem, as all values were lower than 3. Four independent variables explained 53% of the variation in the dependent variable: the in-sample predictive power was $R^2 = 0.527$, representing moderate power. The blindfolding procedure ($D=10$), $Q^2 = 0.392$ of Stone-Geisser was obtained, which depicted a sizeable predictive relevance for an endogenous construct. We also examined the standardised root-mean-square residual (SRMR), an absolute fit measure. It was 0.08 at the cut-off value defined by Hu and Bentler (1999).

The structural model was assessed through a bootstrapping procedure. All hypotheses 1, 2, 3, and 4 were supported (Figure 2). The results indicated that the Polish diaspora's Attitude towards DMT ($\beta = 0.329, p < 0.001$), their Subjective Norms ($\beta = 0.277, p < 0.001$), Perceived Behavioural Control ($\beta = 0.112, p < 0.001$), and Past Behaviour ($\beta = 0.302, p < 0.001$) were significant predictors of DMT. We also verified the effect size (f^2) to evaluate the constructs' effects (Table 6). The Attitude and Past Behaviour in undertaking DMT had moderate effects; Subjective Norms had a small/close to moderate effect, and PBC had only a small effect.

Table 6. *Assessment of the structural model with a complete bootstrapping procedure¹*

Hypotheses	Std. Beta	Std. Dev.	t-value	p-value ²	BC CI 2.5%	BC CI 97.5%	VIF	f^2	f^2 effect ³
$R^2 = 0.527, Q^2 = 0.392$									
H1) AT -> DMT Intention	0.329	0.037	8.949	***	0.258	0.402	1.462	0.157	moderate
H2) SN -> DMT Intention	0.277	0.031	8.961	***	0.218	0.338	1.323	0.122	small/moderate
H3) PBC -> DMT Intention	0.112	0.029	3.870	***	0.054	0.165	1.079	0.024	small
H4) PB -> DMT Intention	0.302	0.029	10.355	***	0.245	0.360	1.155	0.167	moderate

Note.

¹bias-corrected, resampling of 5000, sign. level.05, two-tailed test

² β : Standardized Regression Weights ** $p < 0.05$, *** $p < 0.001$.

³ f^2 for various proposed models: $f^2 \geq 0.02$ small, $f^2 \geq 0.15$ medium, $f^2 \geq 0.35$ large

The data spanned three countries, although similar in healthcare systems' characteristics. We conducted a multigroup analysis (MGA, complete bootstrapping 5000, significance level $p < 0.05$) to test whether predefined data groups (BE, NL, and LU) had significant differences in their group-specific parameter estimates (e.g., outer loadings and path coefficients). Before performing an MGA, we assessed the measurement invariance of the composite models (MICOM approach with 5,000 permutations, two-tailed, significance level $p < 0.05$, with three steps recommended by Henseler *et al.*, 2016). Steps one and two were achieved for all three country groups. As for step three (equality of composite mean values and variances), we noted full invariance between BE and LUX, partial invariance between BE and NL and NL and LUX. However, partial invariance still allowed us to compare the group path coefficients (Hair *et al.*, 2017).

The differences between the countries and the main constructs were insignificant at the statistical level for all three countries. The coefficient of determination was the highest for Luxembourg ($R^2 = 0.646$) and much lower yet at a similar level of significance for Belgium ($R^2 = 0.488$) and the Netherlands ($R^2 = 0.444$). The difference stemmed from a much more considerable proportion of the variance explained by the independent variables of Norms ($\beta = 0.472$ for Lux vs. $\beta = 0.375$ for NL and 0.325 for BE) and Attitude ($\beta = 0.298$ for Lux vs. $\beta = 0.199$ for NL and 0.096 for BE).

5. Discussion

5.1 Antecedents of Diasporic Medical Tourism

The research demonstrated the applicability of the Theory of Planned Behaviour for the first time in DMT. All latent variables – Attitude, Subjective Norms and Perceived Behavioural Control, extended with Past Behaviour – were statistically significant. All hypotheses were positively confirmed.

Attitude was the most vital determinant of an intention to undertake DMT. The findings show that three affective aspects of AT had the highest item scores: trust, doctor's approach, and second opinion (previously explored by Kemppainen *et al.*, 2018; Lokdam *et al.*, 2016; Mathijssen, 2019; Şekercan *et al.*,

2014). Feeling confident with doctors (so-called 'Intentional Trust' in Calnan & Calovski, 2015) and with the system ('Institutional Trust' in idem) shaped a positive attitude toward DMT. The results aligned with previous research on DMT, which demonstrated that *affective* healthcare was as crucial as *effective* healthcare (Lee *et al.*, 2010; Mathijssen, 2019; Osipović, 2013).

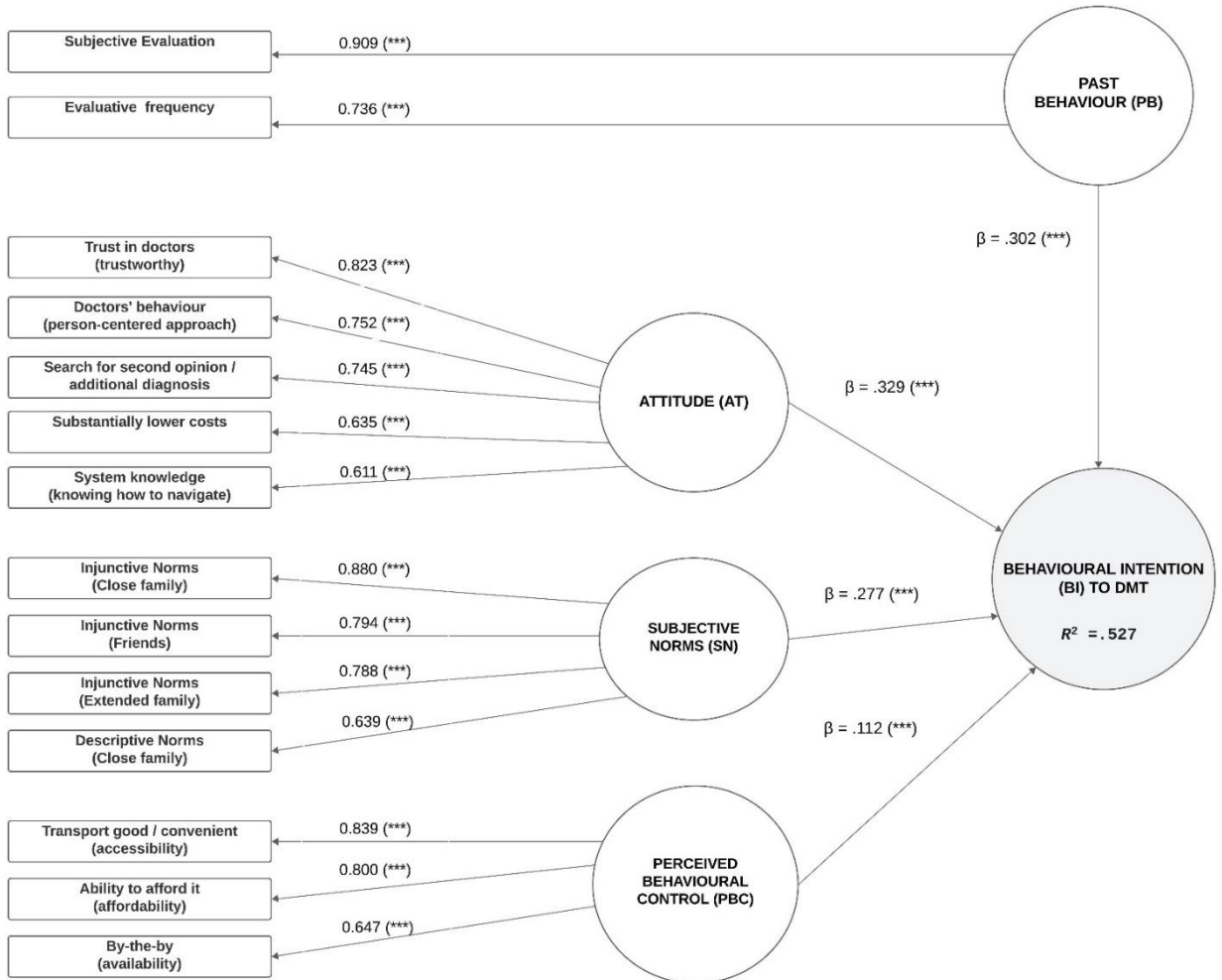


Figure 2. The final model¹ of the behavioural intention to undertake Diasporic Medical Tourism

Note. ¹Indicator outer loadings (outer model), standardized beta coefficients (inner model), in-sample predictive power (R^2), p-values (***) $p < 0.001$.

Notably, the instrumental dimension of AT was also not negligible. Two items – much lower costs and better knowledge/ability to navigate the healthcare system in the CoO – came out as significant. Two descriptions of costs were tested – comparable and substantially different – yet only the second appeared important. We could presume that cost did matter for DMT patients but was not a major driving factor as long as differences in out-of-pocket spending (private spending or as a result of deductibles) were not substantial.

Subjective Norms also came out as a significant determinant. Those results indicate that referents significantly influenced the intention to undertake DMT (via encouragement or pressure). Specifically,

injunctive norms (perceptions of what should be done) were dominant and vital to each category of the referent group. Additionally, the *descriptive norms* (perceptions of whether others were/weren't performing a given behaviour) of people 'closest' to the respondents impacted DMT behaviour. These results should be considered when reflecting on how to market medical tourism to the diasporic population. A few explanations may apply to these results. According to Zou and Savani's (2019) research, people are more likely to follow *injunctive norms* when they require cognitive elaboration in decision-making. When this is not needed, they tend to follow *descriptive norms*. Additionally, the focus theory of normative conduct (Cialdini *et al.*, 1991) explains that social norms provide people with decisional shortcuts in their behaviour, which would tie to the previous finding of overcoming information overload. We also tested two additional referents – 'local doctor in the CoR' and social media contacts (Facebook, blogs, forums, chats)' – but respondents judged them nonessential in the pre-test.

Perceived Behavioural Control contributed the least to forming a behavioural intention. Among *control beliefs*, three items appeared particularly important: prompt/convenient transport (flights, distance), *by-the-by* (by-the-way of VFR), and affordability. Understandably, ease of travel significantly impacted DMT. There were multiple connections between the CoR and CoO (daily flights, many operated by low-cost airlines). Additionally, road transport functioned well, with numerous mini-bus companies frequently travelling to Poland. Finally, geographical proximity (two-hour flights between main cities) contributed to diasporic travel, in line with previous findings (Jaapar *et al.*, 2017; Lee *et al.*, 2010; Musa *et al.*, 2012; Vargas Bustamante, 2019). Specifically, low-cost travel and relative geographic proximity – the so-called *spatial capital* – made DMT possible (Osipovič, 2013; Şekercan *et al.*, 2014). In many instances, diasporic travellers used HCS in the CoO while undertaking their VFR travel, which authors have referred to either as the '*by-the-by* factor' (Mathijssen, 2019; Snyder *et al.*, 2016) or '*aprovechar*' (meaning 'take advantage of') (Bergmark *et al.*, 2010) or '*add-on* treatments' (Hanefeld *et al.*, 2015). Additionally, the affordability control factor (as per previous research by Mathijssen, 2019; Stan, 2015; Vargas Bustamante, 2019) highlighted the ability to select the best value for money. Due to price differences, respondents could choose the best value for money, which increased their social status in the CoO and mitigated their uncertain status in the CoR. Nieswand (2011) documented it as the *status paradox of migration*. It meant migrants were frequently forced to accept positions in low-income segments (e.g. domestic help, construction). As a result, they lost status in the CoR. Still, they gained status in the CoO by building symbolic representations of a middle-class lifestyle (e.g. frequent flights, access to private medical healthcare, and good medical facilities as in Şekercan *et al.*, 2018 and in Stan, 2015).

The research provided new insight into the body of knowledge by confirming the hypothesis that the Past Behaviour variable was statistically significant in the intention to undertake DMT. Scarce research on immigrants' information overload suggests they are exposed to too much information once in the new country (Ndumu, 2020). This might present an essential barrier to social inclusion. When coping with uncertainty, people often rely on heuristics (simple, intuitive decisions; Kahneman, 2011) – they resort to what they know as familiar. Therefore, the DMT could be explained partly as a behaviour of 'going back' to what is familiar and removing additional informational overload. Alternatively, Hofstede's cultural dimensions theory (Hofstede, 2011) may provide another explanation. In this cross-cultural framework (which shows the effects of a society's culture on the members' values and how these values relate to behaviour), Poland scored very high on the *uncertainty avoidance* dimension (93 out of 100) (Hofstede Insights, 2021). People from countries that score high for this dimension avoid uncertainty and minimise the unknown. Interestingly, other countries cited in the literature on DMT also scored high for this dimension, e.g. Guatemala (98), Mexico (82), South Korea (85), and Turkey

(85). Lastly, the third hypothesis explanation is that diaspora members were satisfied with the HCS they received in the CoO and continue to return.

5.2. *Diasporic versus foreign medical tourists*

To our knowledge, this was the first research that aimed to understand the concordance and discordance between diasporic and foreign medical tourists. The Theory of Planned Behaviour as a theoretical framework was applied sporadically in MT, mainly in Asia, and not in Europe. Therefore, a strict comparison with our European results would have to be taken cautiously. The data contributes to a clearer understanding of the differences between diasporic and foreign medical tourism behavioural intention (Table 7).

The results showed that foreign and diasporic MT were influenced by similar main constructs. In line with our research, AT was the most vital determinant in Ming (2019, China) and Na *et al.* (2016, Malaysia). However, in Lee *et al.* (2012, South Korea), SN was the most vital determinant. PBC was the weakest determinant in all instances, as shown in this research. Our study also demonstrated that Past Behaviour played an essential role in the behavioural intention of undertaking DMT, an element never included in the TPB in medical tourism. Additionally, the Polish diaspora was driven by similar constructs across three countries (BE, NL, LUX) with no statistically significant differences, yet they belong to the same group of healthcare systems.

However, the novelty of this research lay in the detailed analysis that revealed that different underlying factors fashioned the main constructs. Contrary to the previous assumption that DMT relied solely on cultural factors, the data showed that DMT antecedents were not solely culture-related but were both commercial (economic) and noncommercial (i.e. communication, culture, networks, knowledge). Firstly, trust in doctors and the system (often termed 'medical culture') played a significant role, something which has not been emphasised or researched much in foreign MT travellers (good overview of the research gap related to trust in MT in Calnan & Calovski, 2015). Secondly, the quality of HCS, waiting times, and the language barrier (Ramos & Cuamea, 2023; Snyder *et al.*, 2016; Van den Broek, 2021) didn't come as essential factors in DMT (also confirmed by Şekercan *et al.*, 2018) and were removed. Thirdly, while cost savings played a crucial role for MT foreign patients (Jaapar *et al.*, 2017; Vargas Bustamante, 2019), diasporic travellers expected the best value for money. Fourth, while diasporic medical tourists sought a second opinion, foreign medical tourists looked for treatments based on opinions already received.

Additionally, in foreign MT, word-of-mouth (WOM, and especially e-WOM) was highlighted (Connell, 2013; Musa *et al.*, 2012). In diasporic MT, social norms - much broader concepts specifying the rules (primarily unwritten and informal) of acceptability, appropriateness, or obligation in a given group or culture - drove the behavioural intention of travellers guided by their social network (Şekercan *et al.*, 2018).

Lastly, the trip was intentional and well-planned for foreign travellers, often as a 'vacationing patient' (as in Calnan & Calovski, 2015). The DMT was also planned for diasporic travellers but more as a complementary trip to the VFR purpose (Mathijssen, 2019).

6. Implications

6.1. *Managerial implications*

The results provide practical implications for destination management organisations (DMOs), medical facilities, tourism policymakers and healthcare institutions in developing marketing plans and management tools.

Table 7. *The main differences between DMT and foreign MT*

	DIASPORIC MEDICAL TOURISM ¹	FOREIGN MEDICAL TOURISM ²
KEY CONSTRUCTS		
1) Most significant predictors	Attitude and Past Behaviour	Attitude (one research showed Subjective Norms)
2) Weakest predictor	Perceived Behavioural Control	Perceived Behavioural Control
3) Past Behaviour as a predictor	Important	Not researched
SPECIFIC MOTIVATIONAL FACTORS		
1) Trust in doctors (feeling confident with doctors, doctors' approach)	Important	Not emphasised or researched
2) Knowledge of how to navigate the healthcare system	Important	Not emphasised or researched
3) Past experience	Important	Not emphasised or researched
4) Social norms	Important (social networks, such as family and friends)	Important, driven by Word-of-mouth (WOM, and especially e-WOM)
5) Affordability	Best value for money (mostly out-of-pocket)	Price is crucial, a key driving factor (out-of-pocket)
6) Second opinion	Important	Not emphasised or researched
7) Transport/connections	Important	Geographic proximity preferred (less than three hours away) ³
8) Quality service	Statistically not significant	Important
9) Waiting times	Statistically not significant	Important
10) Language and communication	Statistically not significant	Important
11) Types of care	Primary and secondary care	Tertiary and Quaternary care, but also dental care
12) Primary/secondary objective	VFR/Diaspora tourism primary, DMT secondary but planned and organised	MT Primary objective, Vacationing - secondary
13) Organisation	Planned as part of VFR, organised individually	Planned and organised upfront, often with different actors
<i>Note.</i> ¹ findings from this research ² findings from the literature review ³ in Ramos and Cuamea (2023)		

Diasporic medical tourists were 'Committed' and 'Contented' travellers (75%). They consciously and deliberately participated in both healthcare systems, acting as transnational consumers-patients-travellers. Assuming the applicability of the scarce results of the DMT estimates in the literature

(between 25% in Van den Broek, 2021, and 75% in Horsfall, 2019) and given that there were 4.8 million Polish emigrants in Europe, the most restrictive number points to over 1 million potential customers for DMT (25% of Polish adult migrants in Europe), which is a substantial group of consumers. Those results indicate that DMT contributes to sustaining the HCS of the CoO. The governments could be reasonably stirring interest in supporting DMT instead of simply acknowledging that it happens organically. In addition, countries targeting diasporic medical tourists might benefit from strategic planning around medical specialisations and also by targeting sub-populations of patients (Snyder *et al.*, 2016).

The main commercial factors that influenced the decision to undertake DMT were much more than the cheap costs of medical services (in line with Thuy *et al.*, 2019). They were related to accessibility, availability (by-the-by) and affordability (value for money and not just low costs of medical services, in line with Thuy *et al.*, 2019). These findings contrast with previous research that cultural reasons overrode economic factors (Connell, 2013) and prove that economic factors (commercial) are equally important and should be emphasised in promotional activities.

DMT was frequently planned within the VFR stay, usually in two significant travel periods: the summer holidays and Easter (Mathijssen, 2019). Therefore, DMT accessibility and VFR journeys are currently concentrated in those two periods. However, the development of telemedicine and the digitalisation of health services will gradually improve accessibility and availability at a distance at any time. The health data could be consulted by various doctors, assuming the results are accessible in an understandable format and language (for example, a proposed European Health Data Space). Benbassat (2019) argued that patients had a right to obtain a second opinion and advocated creating programs to help patients seek it. Additionally, digital access to healthcare could facilitate DMT via easy-to-access offers such as “medical Groupon”, telehealth or the availability of diagnostic websites, where everyone can sign up for any test close to their sojourn and at a convenient time (e.g. *Alab Laboratoria* with 180 testing points across Poland). Also, e-health websites where one can read opinions about doctors and book an appointment directly (such as *md.com* or *znanylekaz.pl* - eng. well-known doctor) would benefit from those consumers if advertised to the diaspora members.

As for noncommercial factors, since DMT relies strongly on subjective norms, affinity and kinship relationships are increasingly important in marketing to the countries of origin (UNWTO, 2009). The ‘affinity marketing/cultural affinity’ approach (see Serrano-Arcos *et al.*, 2022, for a good overview) would be recommended for this segment. The encouragement from trusted contacts – close/extended family and friends – is much more critical than e-WOM and virtual social media connections (extensively used in foreign MT). Du Preez and Govender (2020) underline that the influence of family and friends’ recommendations must be considered. Trust in doctors and the health system constitutes what is known as ‘medical culture’, which should be emphasised and clearly communicated (Connell, 2013). Importantly, encouragement from peers (i.e., compatriots) and sharing experiences might be very impactful in the acculturation process and what is linked to it: acculturative stress. Du Preez and Govender (2020) even suggest that acculturation is a moderating factor in diaspora tourism. When information overload appears, information from trusted and friendly sources is accepted faster and in a more accessible way. Kemppainen *et al.* (2020) demonstrated that the community of one’s nationality (83%) and having friends/relatives in the CoO (70%) were essential for immigrants. Therefore, in promoting DMT, it is crucial to communicate to diasporic networks (nostalgia goods shops, associations, cultural and religious communities, diaspora media outlets, and border crossings). Diasporic medical travellers could serve as ‘early adopters’ who communicate their medical experiences to their peers in their countries of residence and their countries of origin (Ormond, 2014; Snyder *et al.*, 2016). An additional route for DMT promotion may be the formation of the country’s “health ambassadors” leading to the recommendation of the MT to potential patients in their CoR, inviting them to their CoO.

6.2. Policy Implications

Management in the case of MLT requires special government competence (UNWTO, 2009). National Tourism Administrations are not responsible for policies and measures regarding migration. Nevertheless, UNWTO (2009) suggests they might indirectly help through coordination mechanisms, research funding, and consultation. Governments are encouraged to expand their promotional activities via tourism offices with diaspora-related activities in collaboration with ministries for diasporas. National tourism offices could serve as points of contact for diaspora members. As an example of how to market to diaspora members, we could refer to The Minister of State for the Diaspora and International Development of Ireland, which runs *the Global Irish* digital newsletter and website targeting its diaspora worldwide and presenting various offers to diaspora members.

Specifically for the European Union context, where DMT travellers have access to the healthcare systems of the CoRs and still choose to use them in the CoOs, it indicates that those 'hidden' consumers might exist in significant numbers but remain understudied. In a way, they could be perceived as precursors of the European Health Union, where patients treat their health needs across the entire European Union according to their needs, capacity, and accessibility. The European Directive, in theory, allows that already. However, patient mobility under the European Directive remains very low and has been 'moderately effective' in delivering its objectives (EC, 2022). The main issues impeding the Directive's potential are disproportionate administrative burdens, uncertainty over healthcare costs abroad and their reimbursement, and the need to pay costs upfront – a facet of the Directive strongly criticised. Once all those aspects and significant differences in deductibles improve, the DMT might become even more attractive for those conducting VFR travel.

Lastly, it is essential to note that diasporic social ties may fade away over time. Therefore, encouraging DMT is recommended as long as relations with the CoO are strong. It is also worth emphasising that DMT depends on the level of migration and its VFR visits. Therefore, the results apply to all countries with migration-intensive populations (especially of 1st generation) and those with a high number of immigrant populations in their countries. DMT might be pursued over time with continued migration. The literature on migration specifies that the pace of migrant assimilation and the endpoint of acculturation remain unknown due to the complex nature of acculturation dynamics and the limited research in this field. Schluter *et al.* (2011) pointed to 12 years (66% of the respondents had lived in the CoR less than ten years in the cited research). Van den Broek (2021) also documented that migrants who stayed longer in the CoR were less likely to undertake DMT (yet, the correlation between length of stay in the CoR and DMT was attributable mainly to the improvements in proficiency in the language of the CoR, which in our research did not come out as an important factor).

7. Conclusion

This research aimed to understand the importance, specificity, and distinctiveness of diasporic medical tourism as a part of a worldwide phenomenon of migration-led tourism, on which "*little has been written on such travellers because they are (...) not easy to distinguish and even harder to document*" (Connell, 2015, p. 399). This study allowed us to look at DMT through a theoretical framework and model travellers' behaviour to predict their behavioural intention. To our knowledge, no frameworks were proposed for this sub-segment of tourist/patient/consumer behaviour until today. It contributed to the scant literature on diaspora medical tourism within the European context and in a quantitative way.

Four independent variables of the TPB – Attitude, Subjective Norms, Perceived Behavioural Control and Past Behaviour (tested for the first time) – were statistically significant and explained 53% of the variance in the intention to undertake DMT.

Contrary to previous research suggesting that DMT responded mostly to cultural factors, this research confirmed that both commercial and noncommercial factors were important for behavioural intention. The Instrumental Attitudes and the facilitating factors of the Perceived Behavioural Control made the DMT possible in terms of time, value and organisation. Diasporic members resorted to their comparative knowledge (Instrumental Attitudes) and sources/relationships (Injunctive Norms) to find the best solutions to their health needs. In a state of uncertainty and information overload, people tended to rely on heuristics, resorting to what is known to overcome acculturative stress. The reliance on Past Behaviour, Affective Attitudes and Subjective Norms might have been a form of uncertainty avoidance. The quality of HCS, waiting times, and the language barrier didn't play an essential role in our respondents' attitudes towards DMT.

The study's respondents kept ties with the countries of origin, with frequent or very frequent visits. Importantly, two groups of medical travellers - *Committed* and *Contented* - constituted over 76% of all surveyed diasporic medical travellers. DMTs accessed medical services primarily in private clinics and out-of-pocket (a small number used the European Health Insurance Cards or obtained reimbursement from private health insurance) and judged the quality of medical services between their country of origin and the country of residence as comparable.

The research also allowed us to compare diasporic and foreign medical travellers and their distinctive features. Foreign MTs generally looked for tertiary and quaternary care, with a vital cost-saving, relying on existing recommendations (especially e-WOM). The DMT travellers mainly sought primary and secondary care, influenced by subjective norms and past experience, more in a complementary way to the primary objective of the VFR.

8. Research limitations and future research recommendations

There were some limitations to the present study. Due to the COVID-19 pandemic and lockdowns, we were forced to abandon the previously selected TSL (time-space-location) sampling method in favour of RDS (respondent-driven sampling) and SBS (snowball sampling) and carry it out via digital channels. Strategies such as SBS and RDS involve referral chains of sampling, which may lead to selection bias and gatekeeper bias, influencing the validity of the sample. Therefore, whenever possible, we compared our sociodemographic characteristics with the general data; the data reflected the general population quite well.

Additionally, the research was conducted in European Union countries within a specific cultural context; hence, marketing programs should be sensitive to cultural specificity. Further research in the European context would be highly recommended, given the multitude of health environments and their accessibility.

Future cross-cultural studies would contribute to testing the generalisability of the instrument and could exclude or add country-specific factors if necessary (e.g. religious rituals or travel time/distance). Additionally, the typical application of the TPB devotes little attention to the role of emotion (Fishbein & Ajzen, 2010), which might be significant in medical travel (and VFR travel). For future studies, it would be advisable to include language proficiency for verification. We asked a general question about communication capacity (subjective feeling), but it was a much broader concept than pure language proficiency. The question could be enlarged by considering the 'country environment' comprising exchange rate, country image, language similarity, travel safety and stability of the economy (Taheri *et al.*, 2021).

In terms of affordability, there might be a difference in behavioural intention between those with basic health insurance and those with voluntary health insurance, which should be analysed in more detail.

Further research in the European context would be highly recommended, given the multitude of healthcare clusters: in the cluster of either strong gatekeeping, regulation-oriented and modest supply (such as in Denmark and Great Britain) or in a cluster of Western European social insurance (Austria, France and Germany), especially that Polish migrant population are the most numerous in the United Kingdom and Germany. There is also a question regarding a diaspora population holding two health insurances – from the CoO and the CoR. Furthermore, what is the financial implication of this double-insurance charge on the respondents? Lastly, what level of ‘out-of-pocket’ spending and/or deductibles encourage the DMT?

Notwithstanding, predisposing factors for DMT could be sociodemographic characteristics such as gender, marital status, level of education, migration-specific demographic factors (generation, ethnicity), nationality, duration of residency, job security and employment. We still know little about the potential diasporic medical tourists who do not purchase medical services back in the CoO nowadays; what are the barriers, and what would motivate them? Also, the question of the diaspora descendants is worth investigating (in Nielsen *et al.*, 2012, 19.4% of the descendants in the researched population used DMT).

Further research would be very welcome to quantify more precisely the volume of diasporic medical tourists, given the challenging nature of immigrants. In addition, there is an urgent need for more data regarding the diaspora's contributions through tourism (its frequency, time spent, travel patterns, and the amounts paid for HCS while in the CoO). Additionally, applying another theoretical framework, such as the Health Belief Model or Conservation of Resources Theory, could yield interesting results for comparison. Finally, conducting a similar study in other geographical areas (more research in Europe) and with more traditional sampling methods would be beneficial to confirm the generalisability of the above findings.

Competing interests: The authors declare that they have no competing interests.

Availability of data and material: The data supporting this study's findings are available from the authors upon reasonable request (only in the coded form).

Ethical approval: The Departmental Revision Board of the Collegium of World Economy at the Warsaw School of Economics granted full approval for the research, including ethical requirements.

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APPENDIX*List of salient beliefs tested in the research and their scientific source*

Item	Beliefs reflecting each construct	Scientific source
BEHAVIOURAL BELIEFS reflecting the construct of ATTITUDE (AT)		
CULTURAL		
BB1	Doctors' behaviour (affective care, person-centred approach)	Jaapar <i>et al.</i> (2017); Lee <i>et al.</i> (2010); Mathijssen (2019); Osipovic (2013); Sekercan <i>et al.</i> (2014)
BB3	Communication with a doctor (language, communication style)	De Jesus & Xaio (2013); Jaapar <i>et al.</i> (2017); Lee <i>et al.</i> (2010); London Economics and Ipsos (2014); Main (2014); Mathijssen (2019); Su <i>et al.</i> (2011); Wang and Kwak (2015)
BB7	Trust in doctors (trustworthy)	Osipovic, 201; Lack of trust came in: Main (2014) and in Migge and Gilmartin, 2011
BB6	Second opinion/additional diagnosis	Lokdam <i>et al.</i> (2016); Mathijssen (2019); Sekercan <i>et al.</i> (2014)
INSTITUTIONAL		
BB2	Understanding the system and knowing how to navigate it	Abubakar and Ilkan (2016); London Economics and Ipsos (2014); Sekercan <i>et al.</i> (2014)
BB4	The costs of healthcare services for me are substantially different	Gonzalez-Block <i>et al.</i> (2013); Jotikashira (2010); Mathijssen (2019); Migge and Gilmartin (2011)
BB9	The costs of healthcare services for me are comparable	
BB10	Avoiding waiting times, smooth organisation	London Economics and Ipsos (2014), Nielsen <i>et al.</i> (2012)
BB5	Quality of healthcare	Bergmark <i>et al.</i> (2010); De Jesus and Xaio (2013); Gonzalez-Block <i>et al.</i> (2013); Han and Hyun (2015); Jaapar <i>et al.</i> (2017); Lokdam <i>et al.</i> (2016); Su <i>et al.</i> (2011); Wang and Kwak (2015)
BB8	The conditions of using healthcare (environment, additional services)	
NORMATIVE BELIEFS reflecting the construct of SUBJECTIVE NORMS (SN)		
DESCRIPTIVE NORMS		
DN1	Descriptive Norms of Close People/Close Family	Mathijssen (2019)
DN2	Descriptive Norms of Friends	Mathijssen (2019)
DN3	Descriptive Norms of Extended Family	Mathijssen (2019)
INJUNCTIVE NORMS		
IN11	Injunctive Norms of Close People/Close Family	Mathijssen (2019)
IN12	Injunctive Norms of Friends	Mathijssen (2019)
IN13	Injunctive Norms of Extended Family	Mathijssen (2019)
CONTROL BELIEFS reflecting the construct of PERCEIVED BEHAVIOURAL CONTROL (PBC)		
FACILITATING FACTORS		
CB1	By the way of visiting my friends and relatives	Bergmark <i>et al.</i> (2010); Gonzalez-Block <i>et al.</i> (2013); Hanefeld <i>et al.</i> (2015); Lee <i>et al.</i> (2010); Main, (2014); Mathijssen (2019); Messias (2002); Osipovič (2013); Seid <i>et al.</i> (2003); Sekercan <i>et al.</i> (2018)
CB2	Affordability (I can afford it there).	Mathijssen (2019); Migge and Gilmartin (2011); Snyder <i>et al.</i> (2016); Stan (2015)
CB3	The family's recommendation of a doctor	Cham <i>et al.</i> (2016); Jaapar (2017); Jotikashira (2010)

CB4	Prompt and convenient transport (flights, distance)	Jaapar (2017); Lee <i>et al.</i> (2010); Musa <i>et al.</i> (2012); Osterle <i>et al.</i> (2009); Vargas-Bustamante (2019)
CB5	Lack of /insufficient healthcare insurance	De Jesus and Xiao (2013); Jotikasthira (2010); Seid <i>et al.</i> (2003); Su <i>et al.</i> (2011); Wallace <i>et al.</i> (2009)
IMPEDING FACTORS		
CB6	Time availability	Gonzalez-Block <i>et al.</i> (2013); Mathijssen (2019)
CB7	Organisation (time, processes)	Messias (2002); Seid <i>et al.</i> (2003)

Note. From “*Diasporic medical tourism: a scoping review of quantitative and qualitative evidence*” by Mathijssen and Mathijssen (2020).

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