Local Accreditation in Outpatient Care as an Alternative to Attract Foreign Patients to Colombian Medical Travel: A Case Study in the City of Barranquilla

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Abstract
This article analyzes the contribution of the accreditation in outpatient care of the Colombian Institute of Technical Standards and Certification in the perception of satisfaction of patients treated in the city of Barranquilla (Colombia). Two groups of 67 participants underwent outpatient procedures at an accredited and non-accredited clinic. A quasi-experimental design based on a pre-test, post-test, and a focus group was applied to both groups. A t-test and a Tau Kendall correlation coefficient were applied. It was found that the patients treated in the accredited clinic were more satisfied in the time of consultation received, follow-up care, and the communication between them with their physicians and nurses. It was also found that each group had different preferences in the care received. This study contributes to knowing more about Colombian medical travel from case studies.

Keywords
Colombia, Barranquilla, outpatient medical care protocols, medical travel, local accreditation

Introduction
Timely access to medical procedures has become a challenge in various developed countries. The high demand for medical treatment and procedures in public and private health systems, and the limited coverage of medical insurance policies have increased the waiting time lists, threatening patients’ health. An option increasingly adopted to face waiting time lists is the voluntary mobility to other nations to access invasive and non-invasive procedures to bring overall improvement to an individual’s health based on major and minor surgeries, medication, and medical devices that improve their physical health. International mobility occurs mainly in two ways: (1) patients who undergo medical treatments in developing countries seeking similar quality at lower costs and (2) patients who go to developed nations seeking advanced medical procedures that are not found in their countries of residence. Dalen and Alpert (2019) distinguish medical tourism from medical care travel alone. Pure medical care travel occurs when individuals’ primary purpose of displacement is due to medical purposes only, while in medical tourism, people wish to undergo medical procedures and in turn, carry out tourist activities.

However, patients’ international mobility also poses a high risk of unethical medical practices that threaten their physical integrity. The limited international consensus on the planning, application, and periodic review of outpatient medical care protocols to ensure their physical safety is one of the risks of undergoing medical procedures in developing countries. In response, developing nations have generated national outpatient care protocols to strengthen patients’ legal framework within the country. In the case of Colombia,
the Colombian Institute of Technical Standards and Certification (ICONTEC), through its Health Accreditation program, accredits the country’s health institutions in outpatient care based on three factors: (1) consultation time (CT), (2) patients’ follow up (FU), and (3) patient-physician communication (PPC). Various sources indicate that ICONTEC-accredited centers have become a destination for receiving foreign patients interested in outpatient medical procedures (especially from the United States).

However, the limited data on the impact of this accreditation on foreign patients’ perception of ambulatory care makes it difficult to know the conditions under which accredited centers compete for the attraction of foreign patients. This study analyzed 67 foreign patients treated in the city of Barranquilla (Colombia) on the outpatient care received in two clinics according to the three previous variables to identify which of the three factors above impacts the perception of medical care the most.

About 26 patients received outpatient care at a clinic accredited by ICONTEC and 41 at an unaccredited one. Participants completed a pre-test survey about their expectations for the ICONTECs’ three factors listed above before receiving the procedures. Then they filled a post-test survey to examine whether their initial expectations had changed. Both groups also shared opinions on the application of ambulatory care protocols in a focus group. This study will contribute to associate the local accreditation in outpatient care with the quality perception of the surveyed.

**Literature Review**

Accreditation in ambulatory medical care is a way to improve medical attention. Several authors highlight the use of case notes, critical care pathways, PCCs (initially known as early recovery pathways), collaborative care plans, and the Kingston Case Notes (KCN) system (formerly known as Kingston Hospital Protocols) as patient information registration and analysis tools based on unique data collection templates (Heymann, 1993, pp. 14–15).

According to Jones and Mullikin (1994), Collaborative care plans, Critical care pathways, and Kingston Case Note are useful to complement health status analysis derived from medical records. The author presented the health status hypothesis based on objective and subjective variables that may provide accurate and efficient assessments of patients’ evolution. The author presented the health status hypothesis as an alternative to explain the relevance of including both objective and subjective data in patients’ evolutionary analysis based on the three analysis tools. Its conceptual approach contributes to determining the relevance of these instruments in the study of patient’s satisfaction with their medical care, which is relevant as a signal of timely attention in foreign medical destinations.

Physical functioning is one variable that can be offered straight to patients based on Likert-scale questionnaires, and semi-structured surveys which may have validity based on their perception of physical health condition after invasive and non-invasive procedures (Kaplan, 1989; Krause & Jay, 1994; McDowell, 2006). According to Cleary (1997) perceived health (the second variable in the health status hypothesis) is “probably the most subjective concept in health status assessment” (Cleary, 1997, p. 1). The author defines it as a patient’s construction of biased reports about its health status that integrates the main ideas derived from physicians’ explanations of its medical condition before and after procedures using individual weights and preferences.

The author also hints at the suitability of the method as a third variable, establishing that the mentioned analysis tools contribute that health care professionals with no training in standardized measures do not affirm assumptions about the value of partly objective variables “without including subjective variables to be determined based on the hypotheses being tested” (if it were the case) (Cleary, 1997, p. 2).

For Phua (2016), Afthanorhan et al. (2017), and Das and Mukherjee (2016), the application of outpatient care protocols based on the three satisfaction factors in medical care and applied by the Colombian Institute of Technical Standards and Certification (ICONTEC) through its Health Accreditation program (consultation time [CT], patients’ follow-up [FU], and patient-physician communication [PPC]) and analyzed through case notes, critical care pathways, and Kingston Case Notes system, contributes to analyzing patients’ satisfaction treated in foreign destinations.

The following review literature analyses the contribution of the three factors above on the perception of satisfaction in outpatient care for different case studies. McDonald et al. (1977), Demakis et al. (2000), and Dünebeil et al. (2012) establish that it is necessary to apply the three ICONTEC factors in a balanced way in order not to distort the experience of medical services received from patients who undergo outpatient procedures in other destinations. A study by de la Puente Pacheco et al. (2020) analyzed the incidence that the first factor (consultation time) had on the perception of satisfaction of the surveyed patients. It was found that although average consultation time was higher than in their countries of origin, various surveyed considered that the conversation between them with the physicians was not the most suitable due to the use of technical terms that were not very understandable. For the respondents, the fact that the physicians and nurses made no effort not to use colloquialisms confused them in many of the instructions received during and after medical consultations. That is, more consultation time does not mean better communication between patients and medical staff.

In a similar study, Tates et al. (2017) analyzed the impact of a consultation medium (physical or virtual) on doctors “and patients’ communicative behavior in terms of information exchange, interpersonal relationship building. Concerning patient-related outcomes, satisfaction, perceived information exchange, interpersonal relationship building, and perceived shared decision making showed no significant differences
between face-to-face and screen-to-screen consultations” (Tates et al., 2017, p. 1).

For Manaf et al. (2015), Rahman (2019), and Han and Hyun (2015), the application of outpatient care protocols based on the three factors above makes foreign patients treated in developing countries to be satisfied with the way they are treated (especially if physicians and nurses speak the same language).

For patient-related outcomes, satisfaction, perceived information exchange, interpersonal relationship building, and perceived shared decision making showed no significant differences between face-to-face and screen-to-screen consultations. Patients' attitude toward web-based communication and patients’ perceived time and attention significantly predicted patients perceived interpersonal relationship building. (Tates et al., 2017, p. 1)

Regardless of the means of consultation, the quality time factor in the outpatient consultation contributes to the perception of patient satisfaction.

Omura et al. (2018) state that “assertive communication by staff also contributes to the perception of satisfaction in outpatient care, especially in situations where the patients have other cultural backgrounds. The authors conducted semi structured interviews with 23 registered nurses, following which data were analyzed using directed content analysis” (Omura et al., 2018, p. 289). Participants expressed that assertive communication skills improved patient’s perception of the quality of care received from the advance notice on the appropriate forms of communication in the study context.

Kee et al. (2018) studied the contribution of the communicative fluency between doctors, nurses, and patients in the perception of satisfaction of ambulatory care. “Thirty-eight cases of anonymized negative patient feedback about junior doctors were analyzed using qualitative content analysis” (Kee et al., 2018, p. 1). A positive association was found between the perception of the quality of care and the use of understandable vocabulary by physicians. “Understandable explanations of doctors and nurses towards patients offer a sense of clarity about the future of their health condition” (Kee et al., 2018, p. 1).

Macono et al. (2017) analyzed the application of the three factors above in outpatient medical care in four hospitals accredited by the Joint Commission International located in South America. The authors found that the time spent in post-ambulatory care increased by 21% and the participants reported greater satisfaction with the third factor. Several authors indicate that the use of the three factors in outpatient care protocols contributes to the rigor in clinical research protocols. Brunskill et al. (2017) identified the use of the three factors as an appropriate instrument to generate more precise clinical diagnoses in 34 selected patients. They found that outpatient care protocols decrease the margin of error in the collection and analysis of patient data.

Barlow et al. (2017) applied outpatient care protocols for low complexity treatments in 223 patients with anxiety disorders. The use of protocols based on the three factors above was found to provide more accurate results in mitigating the risk of malpractice. The review of the literature presented gives a background on the association between the perception of satisfaction in outpatient care and the three factors seen.

**ICONTEC Accreditation in Outpatient Care as an Alternative to Attract Foreign Patients to Colombia**

International medical travel is the term used to describe patients’ consumption of medical procedures in countries other than they reside. International mobility occurs mainly in two ways: (1) patients who undergo medical treatments in developing countries seeking similar quality at lower costs and (2) patients who go to developed nations seeking advanced medical procedures that are not found in their countries of residence. Before analyzing the Colombian dynamics of medical travel, the difference between this and medical tourism is mentioned to ensure the consistency of the terms used throughout the paper.

Medical travel does not include leisure activities, as well as wellness services in contrast to medical tourism. Individuals who travel abroad for medical services are primarily motivated by their need for treatment, rather than a desire to practice tourist activities (Ghosh & Mandal, 2019).

Lovelock and Lovelock (2018) considers international patients’ mobility as medical travel since it potentially provides a more accurate understanding of international medical decision making. Carrera and Bridges (2006) insist that the medical tourist experience is based on tourists’ emotional context that does not necessarily occur in patients who undergo medical procedures abroad. Lunt et al. (2015) found that the medical travel term is more accurate compared to medical tourism since patients who often feel enforced to travel to seek medical care expressed a low desire to enjoy leisure activities in institutional referrals. For this research, patients’ international displacement is defined as medical travel.

The academic studies and public policy papers on the displacement of foreign patients to Colombia do not satisfactorily distinguish between medical travel and medical tourism. While studies such as de la Puente Pacheco (2015) and González-Mendoza and Fonseca-Vigoya (2016) categorize the remaining tourist activities of individuals who arrive in Colombia in search of medical attention, there are no studies that delimit the frontier between arrivals for medical and tourist purposes. de la Puente Pacheco et al. (2020) presented a quasi-experimental analysis on the patients’ quality perception of medical care to the international accreditation granted to clinics in the country, finding that although the patients surveyed expressed in focus groups their intention to carry
out tourist activities, it was not their main driver to travel to Colombia, nor was it possible to verify whether such leisure activities were carried out.

The National Association of Industrialists of Colombia (ANDI by its initials in Spanish) (ANDI, 2014) indicates that around 2.5 million non-resident visitors arrived in 2016 for health care without specifying if they would also consume tourist products and services. The Mayor’s Office of Bogota (2020) indicates that in 2019, 14.2% of national and international non-resident travelers affirmed that they arrived for medical and health care without specifying which category they belonged to (curative, preventive, esthetic, or wellness). According to de la Puente Pacheco et al. (2020), there were more than 18,000 foreign patients who traveled to Colombia to undergo various outpatient medical procedures (not including those who claimed to arrive for cosmetic procedures). The lack of knowledge about whether the patients practiced tourist activities classifies them provisionally as medical travelers, not medical tourists. According to Colombia Migration Office (2021), incoming tourists were more than five million in 2019.

However, it does not classify the type of tourism they practiced, making it difficult to know the number of visitors who combine medical and tourist activities. Medical travel was relatively unimportant in visitor classification, with decision making very much based upon factors relating to only leisure activities, finding a similarity with what was found by Lovelock and Lovelock (2018) on the limited analysis on the differences between medical tourism and medical travel. Hence, the medical and tourism public policy documents cited in this study do not differentiate between medical tourism and medical travel. Thus, the information on the arrival of patients who expressed their desire to undergo invasive, non-invasive medical procedures, access medical devices and medications comes from independent consulting agencies, externally funded academic research, and public-private studies.

Colombia is the third country in the Latin American region to which more people travel to undergo cosmetic procedures. Only exceeded by Brazil and Mexico. In 2019, according to Forbes (2019), 408,789 of these procedures were carried out in the country; of which 273,316 were surgical and 135,473, esthetic treatments that do not require intervention. Outpatient medical services are highly demanded by American, Venezuelan, and Canadian patients who require postoperative treatment and whose health insurance has policies that cover little or no coverage of the procedures demanded (Beck et al., 2017; Fortenberry et al., 2017; Jindal, 2018).

According to the “Colombia Productiva” government program, the country has the potential to attract at least 2.8 million patients and generate 6.3 billion dollars by 2032. Decree 3,678 of 2010 called National Policy for Productive Transformation and Promotion of Micro, Small and Medium Enterprises: A Public and Private Effort requires national or international accreditation in ambulatory medical care (and other segments) (Colombia Productiva, 2020). Colombia Productiva also created the Business Plan for the Health Tourism Sector in 2016 to provide a roadmap to accreditation in ambulatory care. However, de la Puente Pacheco et al. (2020) found that although international accreditation in outpatient care provides a greater arrival of foreign patients, the costs of obtaining it are still high for many local applicants. It was also found that national accreditations are an efficient alternative to reach new accords with foreign insurers to receive their insured and providing them with various outpatient procedures.

For Díaz Solano et al. (2018) the Colombian Institute of Technical Standards and Certification (ICONTEC) is the national entity that contributes the most to the prestige of Colombian medical travel in the face of the high costs involved in obtaining international accreditations in ambulatory medical care. “ICONTEC is a private, non-profit organization, formed by the voluntary involvement of representatives of the National Government, and the private sector” (Colombian Institute of Technical Standards and Certification, 2019a). Its accreditation program in ambulatory medical care consists of evaluating the three factors above which determine the correct collection of data on the health status of patients treated. The three factors evaluated in an accreditation process are (1) consultation time, (2) patients’ follow up, and (3) patient-physician communication. In each of these, the opinion of patients, nurses, and administrative personnel are taken into account for 1 year, representing a high weight in both the accreditation and its maintenance, thus keeping patients at the center of the evaluation process. Hence the close relationship between ICONTEC accreditation and the perception of the quality of patients treated. “Its Health Accreditation program is a voluntary and periodic process of internal self-evaluation and external review of the processes and results that guarantee and improve the quality of customer care in a health organization through a series of optimal standards, and feasible to achieve, previously known by the evaluated entities” (ICONTEC, 2020). The Health Accreditation program is an external evaluation methodology, established, and recognized for almost 50 years in North America, specifically designed for the health sector, generally performed by a non-governmental organization.

The objective of the Health Accreditation program is to encourage outpatient medical practice management, strengthening the competitiveness of national health organizations and providing clear information to national and foreign patients, so that they can make decisions based on the three factors mentioned above before (Colombian Institute of Technical Standards & Certification, 2019b).

The city of Barranquilla has one health entity accredited in outpatient care called Bonnadona Prevenir Clinic with a capacity of 302 beds, 7 operating rooms, 32 chemotherapy chairs, a procedure room, and 71 emergency cubicles. Its improvement in the time of care for patients in outpatient consultations, the high perception of national and foreign patients on the communication between doctors and patients,
and the follow-up care got it the accreditation in ambulatory care of the Health Accreditation program on March 12th, 2019, ratified by the Board of Directors of ICONTEC on March 20th, 2019 (Colombian Institute of Technical Standards & Certification, 2019).

Loh and Triplett (2019) and de la Puente Pacheco et al. (2020) establishes that the ICONTEC accreditation is a positive input for the arrival of foreign patients to Colombia who wish to undergo complex oncological treatments. The scarcity of information and previous studies on the impact of ICONTEC accreditation on patients’ perception of satisfaction in the medical attention received makes it necessary to conduct an experiment on the differences in perception in accredited and non-accredited clinics in the city of Barranquilla, thus providing further directions to understand the Colombian medical travel market.

The hypotheses of the study were the following:

H₁: The accredited clinic in outpatient care had a higher patient’ satisfaction in the ICONTEC’s three factors (consultation time [CT], patients’ follow-up [FU], and patient-physician communication [PPC]) than the non-accredited one.

H₂: There is an inverse relationship between consultation time and the cost of ambulatory procedures in the accredited group.

**Methodology**

This study compared the perception of satisfaction of foreign patients who underwent selected outpatient procedures in the city of Barranquilla. Twenty-six patients received it in a clinic accredited in ambulatory care by the Accreditation in Health program (ICONTEC) and 41 participants in a non-accredited one. A descriptive-analytical study was carried out using a quasi-experimental design based on a pre-test and a post-test. A random stratified sampling design selected both groups.

The health centers evaluated were the Bonadona Prevenir S.A.S. clinic, accredited in outpatient care, and the Misericordia clinic, not accredited by ICONTEC. Both are located in the city of Barranquilla. The selections of both clinics were based on the availability of medical personnel (co-authors of this study) in surveying the participants of study. Both clinics specialize in arthroscopy, biopsy, and outpatient surgery. The selection of patients was done randomly, beginning with a verbal request for a survey to all participants in the study to confirm whether they were foreign patients, and planned to undergo outpatient medical procedures in the city. The follow-up was done in person, and by telephone for the pre-test and post-test filling, as well as for the focus group. Data collection took from May 13th, 2019, to December 12th, 2019. The rationale to choose foreign patients was to contrast previous anecdotal studies (based in secondary sources) on the reasons that lead foreign patients to undergo medical procedures in Colombia with this study based on their perception of satisfaction. The rationale to divide foreign patients into two groups was to compare their perception of satisfaction in outpatient medical care received in the accredited and non-accredited clinic.

About 25 patients were from the U.S., 32 from Venezuela, 8 from Panama, and 2 from Ecuador. Forty-two patients were females between the ages of 31 to 63 while 25 participants were males between 38 and 73 years. Before receiving the selected procedures, both groups answered a Likert pre-test questionnaire against a scale of 0 to 10 (where 0 represents the lowest perception score and 10 the highest perception) regarding their initial expectations on the three factors mentioned above. Participants provided orally informed consent on published anonymous information. Both groups were informed on the average time an ambulatory medical consultation should last according to the Health Accreditation program and cases in which a medical follow-up should be done. Furthermore, Cronbach’s alpha for the pretest and posttest does not indicate the reliability of .3 and .75, respectively.

The questionnaires were done with the consent of ethical requirements for the use of information. Once the procedures ended both groups retook the questionnaire (post-test) with the same assessment scale and variables. The participants also shared their perception of the application of outpatient care protocols in a focus group. Demographic information was obtained before the experiment to assess whether both groups had similar characteristics.

**Focus Groups**

The focus group followed a protocol that consisted of three parts. The first one began with the presentation of the participants, and the ambulatory procedures that were carried out in the clinics. Twelve patients treated in the accredited clinic were from the U.S., and 14 from Venezuela. Ten surveyed underwent arthroscopy, 12 to biopsy, and 4 to ambulatory surgery.

In the non-accredited group, 13 patients were from the U.S., 18 from Venezuela, 8 from Panama, and 2 from Ecuador. Twelve underwent arthroscopy, 16 to a biopsy, 9 to ambulatory surgery, 3 to hardware removal (plates and screws), and 1 to endoscopy.

In the second part of the focus groups, the participants of each group shared their experience about the time of consultation with their doctors. American and Venezuelan participants expressed their satisfaction with the collecting information protocols before consultations with their physicians. Americans and Panamanians expressed that personal data collection was similar to the ones receive in their countries’ clinics.
The most shared opinions were that “the physicians tried to make us easily understand our health status, medical procedures to be performed, and the post-operative follow-up,” “the nurses did not use colloquial expressions to communicate with us.” The patients who underwent medical procedures in the accredited clinic expressed that they arrived at Barranquilla willing to pay more for the procedures demanded if that means better medical consultation time, more careful post-operative care, and understandable communication with their physicians and nurses. They also highlighted that the accredited clinic applied personal data collection protocols to add precision to outpatient diagnoses.

The non-accredited group perceived difficulties in the collection of their personal information. They expressed that “it took too long for the receptionist to ask for their data and to have an initial assessment before the medical attention,” and “administrative staff assumed that we knew the steps of personal and medical registration before being treated.” These previous circumstances led them to have a negative perception of their medical care experience even before their outpatient consultation. They also expressed that physicians did not use understandable words in the explanations about the procedures to be performed. For participants, “it is necessary to strengthen assertive communication between doctors and nurses to improve the quality of medical care.”

The opinions of both groups indicate that the participants treated in the accredited clinic in outpatient care by the ICONTEC Health Accreditation program were more satisfied in the time of outpatient consultation, and the communication between them with their physicians and nurses. This indicates that the accredited clinic performed better on the three factors mentioned above and that this in turn contributed to a better perception of satisfaction in the non-accredited group. The above can be justified by the emphasis that the Health Accreditation program gives to the continuity of the quality of care throughout the process of reception, attention, and follow-up to national and foreign patients. In the third part, the participants gave their opinion on their level of satisfaction in the follow-up care. The accredited group thought that although there were some difficulties in understanding medical concepts to English-speaking patients, the personalized follow-up facilitated communication with the help of translators.

All expressed that there was a personal follow-up on their health status once the outpatient procedures were performed. However, they complained that the accredited clinic did not provided assistance in guiding them about the options for accommodation, transportation, and average daily costs once they arrived in the city of Barranquilla. The non-accredited group stated that much of the follow-up care was done virtually, creating difficulties in achieving fluid communication due to internet connection problems, ignorance of various patients in the use of digital platforms, and the use of medical concepts specifics little understandable. The shared ideas of both groups support H1 that patients seen in the accredited clinic were more satisfied with the three factors that determine ambulatory accreditation. It also confirms H2 or the inverse relationship between the costs that the accredited group is willing to assume to receive better quality care in the time of medical consultation. The ambulatory medical accreditation improves the perception of satisfaction of foreign patients attended by Colombian clinics.

**Results**

The patients who attended the non-accredited clinic have a mean age of 53.5 years (SD=12.2). Higher than patients treated in the accredited clinic whose mean age was 47.3 (SD=11.2). The t-test shows statistically significant difference between average patients’ ages who attended the two groups of hospitals (Table 1).

About 62.7% of the participants were female, and 37.7% male. The highest educational level of the participants was college studies with 79.1%. Regarding the country of origin of the patients, the predominant country is the Venezuela with 47.8%. Chi-square test showed no significant differences in the sex, educational level, and country of origin variables (Table 2).

Figure 1 shows the number of patients treated in accredited and non-accredited clinics. Biopsy was the most demanded procedure in both groups. In addition, the chi-square test shows no statistically significant differences between clinics and the performed procedures to both groups ($\chi^2(4)=3.4932, p$ value = .4789).

The t-test confirms a similarity in the CT (0.3529; $p=.7256$), FU (0.5648; .5741), and PPC (1.4112; $p=.163$) variables for both groups before undergoing the requested medical procedures. In the variables CT and PPC, the average results are higher for the accredited clinic, but not significant (Table 3).

Student t-test and t-test with Welch correction confirm significant differences between the accredited and the

### Table 1. Average Patients’ Ages Who Attended the Two Clinics (t-Test).

| Clinic          | N (%) | Mean (SD) | Median | Min–Max | Statistics (p-value) |
|-----------------|-------|-----------|--------|---------|---------------------|
| Accredited      | 26 (38.8) | 47.3 (11.2) | 48     | 23–63   | 2.0809 ($<.05$)     |
| Not accredited  | 41 (61.2) | 53.5 (12.2) | 52     | 31–84   |                     |
| Total           | 67 (100)  | 51.1 (12.1) | 52     | 23–84   |                     |
Table 2. Distribution of Sample Variables in Selected Clinics (Part One, Chi-Square Test).

| Variables          | Total (n=67) | Accredited (n=26) | Not accredited (n=41) | Statistics (p value) |
|--------------------|--------------|-------------------|-----------------------|----------------------|
| Sex                |              |                   |                       |                      |
| Male               | 25 (37.3%)   | 17 (65.4%)        | 25 (61.0%)            | 0.011 (.9169)        |
| Female             | 42 (62.7%)   | 9 (34.6%)         | 16 (39.0%)            |                      |
| Educational level  |              |                   |                       |                      |
| College level      | 53 (79.1%)   | 19 (73.1%)        | 34 (82.9%)            | 2.1621 (.3392)       |
| High school        | 8 (11.9%)    | 5 (19.2%)         | 3 (7.3%)              |                      |
| Graduate level     | 6 (9.0%)     | 2 (7.0%)          | 4 (9.8%)              |                      |
| Country of origin  |              |                   |                       |                      |
| United States      | 25 (37.3%)   | 12 (46.2%)        | 13 (31.7%)            | 7.5608 (.056)        |
| Venezuela          | 32 (47.8%)   | 14 (53.8%)        | 18 (43.9%)            |                      |
| Panama             | 8 (11.9%)    | 0 (0.0%)          | 8 (19.5%)             |                      |
| Ecuador            | 2 (3.0%)     | 0 (0.0%)          | 2 (4.9%)              |                      |

Figure 1. Procedures received in both groups.

non-accredited clinic in CT (8.4918, p < .001), FU (9.557; p < .001), and PPC (6.9443, p < .001). Participants who underwent outpatient medical procedures in the non-accredited clinic reduced their perception scores (Table 4).

Figure 2 shows that scores in the three above factors were more significant in the accredited clinic in the post-test. The post-test shows that patients treated in the accredited clinic had a positive change in quality perception of 80.0% compared to the ones treated in the non-accredited clinic thus validating H1 (Figure 3).

Discussion

The pre-test and post-test show a notable difference in the perception of satisfaction in the ambulatory medical care received between both groups, favoring the patients treated in the accredited clinic. The results are in line with the findings of the literature review in that the three above factors contribute to

No statistically significant correlation between the post-test variables and the accredited clinics was found (see Table 5).
the satisfaction of foreign patients in the consumption of outpatient medical services, and with Cleary’s health status hypothesis in which subjective variables may provide accurate and efficient assessments of patients’ evolution. The accreditation of the ICONTEC Health Accreditation program is a viable local alternative to guarantee optimal care for foreign patients who arrive to Colombia. The evaluative rigor in monitoring the three factors of outpatient care makes patients willing to pay for their services as long as they are guaranteed a sufficiently long consultation time between them with their

Table 3. Comparison of the CT, FU, and PPC Factors in the Pre-Test (t-Test).

| Pre-test variables | Hospitals | Average  | Median | Statistics (p value) |
|-------------------|-----------|----------|--------|----------------------|
| CT                | Accredited| 4.04 (1.28) | 4      | 0.3529 (.7256)       |
|                   | Not accredited | 3.93 (1.23) | 4      |                      |
| FU                | Accredited| 4.27 (1.78) | 4      | 0.5648 (.5741)       |
|                   | Not accredited | 4.51 (1.68) | 5      |                      |
| PPC               | Accredited| 5.0 (1.50) | 5      | 1.4112 (.163)        |
|                   | Not accredited | 4.49 (1.42) | 5      |                      |

Table 4. Comparison of the Three Selected Factors (CT and PPC: t-Test, and FU: t-Test With Welch Correction).

| Post-test variables | Hospitals | Average  | Median | Statistics (p value) |
|---------------------|-----------|----------|--------|----------------------|
| CT                  | Accredited| 7.27 (1.34) | 7      | 8.4918 (<.001)      |
|                     | Not accredited | 4.39 (1.36) | 4      |                      |
| FU                  | Accredited| 8.19 (1.27) | 8      | 9.5570 (<.001)      |
|                     | Not accredited | 4.85 (1.57) | 5      |                      |
| PPC                 | Accredited| 7.54 (1.63) | 8      | 6.9443 (<.001)      |
|                     | Not accredited | 4.76 (1.58) | 5      |                      |

Figure 2. Scores comparison in the three factors (pre-test and post-test).
doctors, fluent, and understandable communication between both, and follow-up care (preferably physical).

Local accreditation in outpatient care has also become an alternative to international accreditations to create alliances between Colombian clinics and health insurance companies that seek to send their insured to undergo medical procedures in lower-cost places. This is exposed in the data collection where several American and Panamanian patients stated that their insurers recommended their transfer to Colombia.

During the focus group of the accredited group, Americans and Venezuelans affirmed that local accreditation in outpatient care contributes to diversifying the recognized clinics they can attend, avoiding selecting only the clinics in their countries of residence, especially when costs are not fully covered for their health insurance policies, thus incurring in out of pocket expenses that affect their domestic finances.

The results of this experiment show that the trade-off between cost per procedure and quality in outpatient care is a main driven in Colombian medical travel. The accredited group represents those who are willing to cover better outpatient care when they are sure that the clinic is accredited. While the non-accredited group represents the search for savings in the selected procedures concerning those offered in their countries of residence. Market segmentation contributes

**Table 5.** Correlation Coefficient of Spearman and \( p \)-Value Between Post-Test and Complementary Questionnaire in the Accredited Clinic.

| Questions                                                                 | Post-test | CT            | FU            | PPC           |
|---------------------------------------------------------------------------|-----------|---------------|---------------|---------------|
| From 0 to 10, where 0 is the lowest perception and 10 the highest, indicate the extent to which your transfer to Colombia was due to cost savings in your medical care | \( \tau \) | -.1631 (.4259) | .0602 (.770)  | .0382 (.8529) |
| From 0 to 10, where 0 is the lowest perception and 10 the highest, indicate the degree to which your arrival to Colombia was due to health centers applying similar care protocols | \( \rho \)  | (.p value)     | (.p value)     | (.p value)     |
| From 0 to 10 where 0 is the lowest perception and 10 the highest, indicate the estimated of time you consider medical consultation should last | \( \tau \) | .0814 (.6926) | .0398 (.8468) | -.2299 (.2583) |
|                                                                 | \( \rho \)  | (.p value)     | (.p value)     | (.p value)     |

**Figure 3.** Change of patients’ quality.
to the specialization of the offer and the arrival of various profiles of consumers of medical goods and services.

The diversification of the medical offer of a supplying country makes it easier to disengage from being known for only offering a group of specialized medical procedures. However, a common strategy that developing countries apply to attract foreign patients is only to over-specialized in a medical area which imply risk of distorted sectoral growth in which tax supports and government programs for sectoral industrialization do not favor all applicants. This is the case of Colombia, where the concentration of the offer in a few specialties has favored a group of clinics in acquiring national and international accreditations for ambulatory care.

Overspecialization not only delays the balanced development of the Colombian medical industry but also generates unwanted effects internally. One of these is the internal brain drain (doctors and nurses) from the public to the private sector due to the expectations of higher incomes. This situation is evident in the waiting lists of some specialists that are coincidentally specialized in clinics with more experience in attracting foreign patients.

Although it cannot be said that accredited clinics in outpatient care completely absorb specialized medical talent, there is an interest of latter in being part of the workforce of these entities, which undermines the quality of medical care in the public sector.

Regarding the international acceptance of local accreditations as a quality reference in outpatient care, both health insurance companies and international accreditation agencies have found local accreditation as an alternative both to determine the similarity between their standards in outpatient protocols with the local ones, as well as to analyze the impact it has on the perception of satisfaction of patients treated in developing countries.

However, the local accreditation in Colombian clinics for ambulatory medical care does not imply that they avoid errors in the registration of personal information, suggesting a low margin of error from insurance companies in data collection, analysis, or delivery of information to patients, thus making alliances between both more difficult than with clinics of developed countries. Socializing the potential risks of procedures that local clinics may incur would contribute to specifying the similarities between local and international practices concerning clinics in developed countries, facilitating compliance with international standards for outpatient care in Colombian clinics.

Regarding the application of the three factors above, the results suggest that these should be applied in the most equitable way to achieve a high perception of satisfaction in the patients treated, as demonstrated in the study. All the three ICONTEC factors must be accompanied by fluid and rigorous communication from physicians, thus facilitating data collection on the evolution of their health.

Conclusions

The verification of the study hypotheses confirms that local accreditation in ambulatory medical care is an alternative that strengthens the expansion of the Colombian medical travel offer. The patients surveyed in the accredited clinic were willing to assume higher financial costs if they will receive more quality time in medical consultations, have fluent communication with their doctors, and receive personalized post-surgical care. Data collection and the statistical results confirm that both groups surveyed had different consumption profiles. While the accredited group opted for more quality time in outpatient care, the non-accredited group preferred to prioritize savings in medical care costs. This study also highlights the importance of using non-conventional quasi-experimental designs to better understand medical travel in developing countries.

The limitation of this study was that the respondents did not share detailed information about their consumption in daily tourist services, or details about the logistics of their travel to the city of Barranquilla. The feeling of maintaining physical security persists in a country with a recent history of violence like Colombia. The scarce information on individual consumption patterns is an unexplored area that can contribute to a more in-depth understanding of the individual and collective profiles of consumption of medical treatments and drugs of foreign patients in different Colombian cities.

The results of this study show an opportunity for clinics in developing countries that seek to stand out as destinations for international medical travel based on the application of national protocols for ambulatory care. While this alternative accreditation facilitates alliances between health insurance companies and builds trust in foreign patients, it also poses a challenge for locally accredited clinics to rigorously apply outpatient care protocols. In the event of medical negligence, insurers, and patients run the risk of not being aware, which could negatively affect foreign patients. Hence the importance of constantly demanding high-quality medical care from health centers in developing countries.

Authors' Consent

The aforementioned authors had a unanimous consensus to all processes undertaken toward the paper.

Compliance With Ethical Standards

This paper complied with the ethical standards of the journal.

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