

# Factors Which Influence Patient Choice When Choosing a Hand Therapist

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## Abstract

**Background:** Orthopedic surgeons often refer patients to hand therapy following orthopedic injury or surgery to facilitate recovery and maximize outcomes. Patients should be a key part of the shared decision-making process when it comes to their rehabilitation. While there is existing literature investigating factors considered by patients when choosing other medical providers, there are currently no studies investigating factors considered by patients when choosing a hand therapist. **Purpose:** The purpose of the study is to investigate public perception of factors which are important when choosing a hand therapist. **Methods:** A convenience sample (N = 220) of adults over the age of 18 completed an anonymous online survey using an internet crowdsourcing platform. Respondents were asked to quantitatively rank the importance of 10 predetermined factors related to selecting a hand therapist. **Results:** Respondents ranked insurance coverage and credentialing as a certified hand therapist as highest in terms of importance. **Conclusion:** We found that the factors people consider important when selecting a hand therapist are similar to the factors described in the medical literature that are important when selecting a physician or other healthcare provider. The results have implications for physicians when ensuring continuity of care for their patients.

## Keywords

Wrist Surgery, Hand Surgery, Hand Therapy, Certified Hand Therapist, Insurance, Patient Choice

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## 1. Introduction

Following an injury to the hand or after surgery, the treating orthopedic surgeon may refer a patient to a hand therapist for a supervised program of therapy in order to facilitate recovery and maximize outcomes. Factors considered impor-

tant by the physician when making the referral may be different than what the patient values when seeking a hand therapist. Knowing what is important to the patient should be part of a shared decision-making process that is central to providing optimal patient care.

While there are studies that investigate factors considered by patients when choosing other medical providers, we are not aware of a study which examines factors that matter to a patient when choosing a hand therapist [1]-[8].

The purpose of this study was to investigate public perception of factors influencing prospective patient decision-making when selecting a hand therapist. This was done using an anonymous online survey.

## 2. Methods

Study participants were recruited through an internet crowdsourcing service, Amazon Mechanical Turk (AMT) (Amazon Web Services, Seattle, WA), on March 2, 2022. According to various articles, the worker population of AMT is representative of the United States Internet population [9] [10] [11]. We utilized this platform to obtain survey responses from a convenience sample of unidentified workers regarding what factors matter to prospective patients when choosing a hand therapist. The data was collected anonymously, and the identity of the participants remain unknown. This study involved no treatment interventions or interactions with the survey participants. Therefore, Institutional Review Board (IRB) approval was not sought by the authors.

### 2.1. Screening Requirements

Participants were included in this study if they self-selected to complete our task (survey) on AMT. AMT is an internet crowdsourcing platform designed to allow users to complete Human Intelligence Task (HIT) requests. These individuals are required to be over the age of 18 as part of their contract with AMT. The AMT platform can prevent an individual from answering via multiple accounts. Workers were asked to take our survey only if they had never been treated by a hand therapist. The survey was published electronically, and respondents were compensated \$0.20 for taking the survey. An attention check question was incorporated in the survey to ensure quality responses. If workers failed the attention check question or failed to answer all the survey questions, their responses were excluded from the study.

### 2.2. Survey Questions

The authors devised the survey by selecting 10 variables based on a review of relevant articles. Prior to answering any survey questions, participants were asked to imagine themselves as prospective patients with a distal upper extremity injury instructed to seek hand therapy services by their doctor. The following question was asked: "When selecting your hand therapist, how important are the following factors?" Participants were presented with 10 factors related to logis-

tical factors (proximity to your home/work, proximity of therapist's office to the doctor's office, ease of parking, insurance coverage, appointment availability, affiliated with a well-known medical group), therapist qualifications (years of experience, Certified Hand Therapist), and referral sources (online reviews, strong doctor referral) (**Table 1**). Participants were required to rank each of these factors on a 5-point Likert scale based on importance to encourage deeper processing of response options (**Table 2**) [12]. In addition to rating the level of importance, participants were asked to select the most important factor when choosing a hand therapist (**Figure 1**). Raw survey data was extracted from the research and automated analytics website Qualtrics at the end of the survey period.

### 3. Results

A total of 237 participants responded to the survey online via Amazon Mechanical Turk. 17 participants were excluded because they failed the attention check question, which left 220 participants who properly completed the survey.

Using the Likert scale, out of the 10 predetermined factors presented, 108 (49.1%) respondents ranked Certified Hand Therapist as being "very important," followed closely by 107 (48.6%) who ranked Insurance coverage as being "very important." Therapist's years of experience was ranked third ( $n = 89$ , 40.5%) and therapist's appointment availability ranked fourth ( $n = 80$ , 36.4%). **Table 3** shows the distribution of answers (by levels of importance) for each of the 10 factors, and the breakdown of each response by percentage and number.

**Table 1.** When selecting your hand therapist, how important are the following factors?

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Proximity to your home/work
Proximity of therapist's office to the doctor's office
Ease of parking
Insurance coverage
Strong recommendation from your doctor
Therapist is affiliated with a well-known medical group
Therapist is a Certified Hand Therapist
Therapist's years of experience
Online reviews
Therapist's appointment availability

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**Table 2.** Likert scale of importance.

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Very Important
Important
Moderately Important
Slightly Important
Unimportant

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**Table 3.** Survey results for factors involved in selecting a hand therapist ranked on the Likert scale of importance.

<i>Field</i>	<i>Unimportant</i>	<i>Slightly Important</i>	<i>Moderately Important</i>	<i>Important</i>	<i>Very Important</i>	<i>Total</i>
Therapist is a Certified Hand Therapist	0.91% <b>2</b>	3.64% <b>8</b>	18.18% <b>40</b>	28.18% <b>62</b>	49.09% <b>108</b>	220
Insurance coverage	1.82% <b>4</b>	5.45% <b>12</b>	12.27% <b>27</b>	31.82% <b>70</b>	48.64% <b>107</b>	220
Therapist's years of experience	0.91% <b>2</b>	6.36% <b>14</b>	15.91% <b>35</b>	36.36% <b>80</b>	40.45% <b>89</b>	220
Therapist's appointment availability	0.00% <b>0</b>	4.09% <b>9</b>	17.73% <b>39</b>	41.82% <b>92</b>	36.36% <b>80</b>	220
Strong recommendation from your doctor	1.82% <b>4</b>	5.00% <b>11</b>	15.91% <b>35</b>	45.00% <b>99</b>	32.27% <b>71</b>	220
Online reviews	1.36% <b>3</b>	8.64% <b>19</b>	22.27% <b>49</b>	35.45% <b>78</b>	32.27% <b>71</b>	220
Ease of parking	6.36% <b>14</b>	13.64% <b>30</b>	19.09% <b>42</b>	34.55% <b>76</b>	26.36% <b>58</b>	220
Proximity to your home/work	0.91% <b>2</b>	6.82% <b>15</b>	14.09% <b>31</b>	54.55% <b>120</b>	23.64% <b>52</b>	220
Therapist is affiliated with a well-known medical group	3.18% <b>7</b>	8.64% <b>19</b>	23.18% <b>51</b>	41.36% <b>91</b>	23.64% <b>52</b>	220
Proximity of therapist's office to the doctor's office	7.27% <b>16</b>	12.27% <b>27</b>	21.82% <b>48</b>	37.27% <b>82</b>	21.36% <b>47</b>	220

The data demonstrates how most factors were considered important or very important (most of all insurance coverage and certification of hand therapist) and few were unimportant.

When asked to identify the single most important factor in choosing a hand therapist, 58 (26.4%) of respondents selected insurance coverage over all other factors and 45 (21.8%) chose Certified Hand Therapist (**Figure 1**).

The most "unimportant" factors to respondents when ranking each of the 10 predetermined factors individually on a 5-point Likert scale of importance were proximity of therapist's office to the doctor's office ( $n = 16$ , 7.3%), and ease of parking ( $n = 14$ , 6.4%) (**Table 3**).

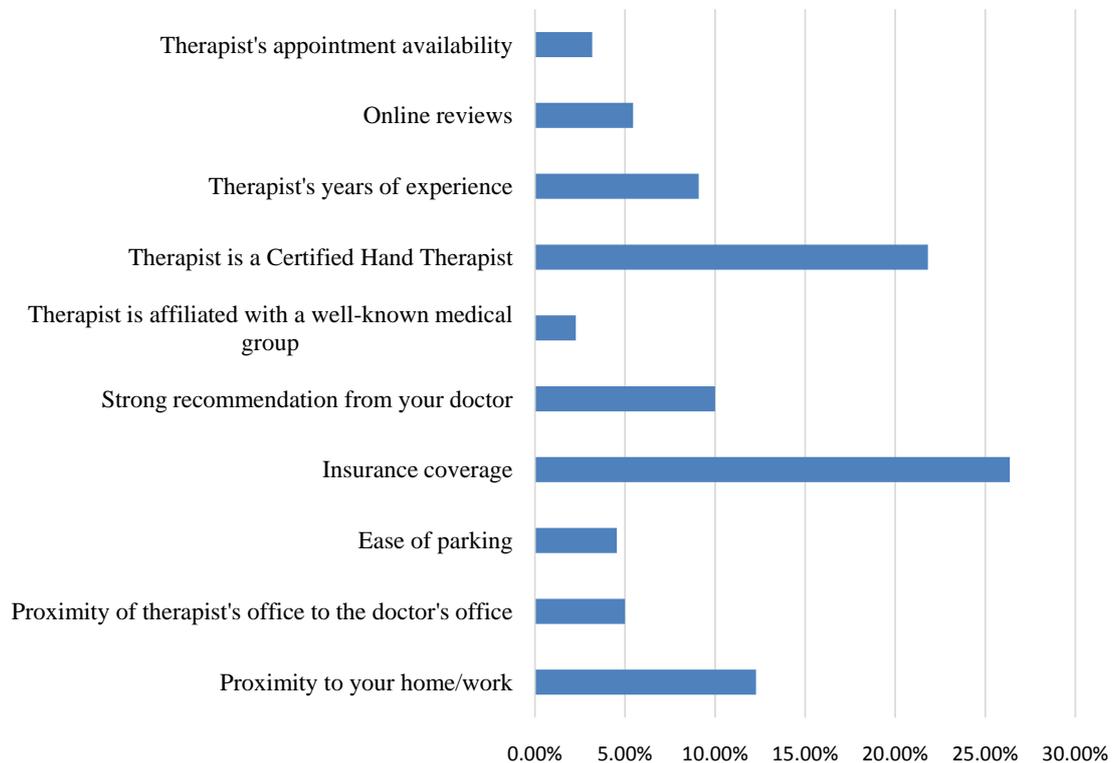
When respondents were asked to identify the single most important factor in choosing a hand therapist, among the least important were the therapists' affiliation with a well-known medical group ( $n = 5$ , 2.3%) and therapist's appointment availability ( $n = 7$ , 3.2%) (**Figure 1**).

#### 4. Discussion

Factors which influence how patients choose healthcare providers have been described in numerous studies, using different questions, different ranking systems, and scales [1]-[8].

Kozikowski *et al.*, in a recent study, investigated the perceived importance of factors patients consider when choosing a healthcare provider [1]. They used a 3-category response scale of "important," "not important" and "not sure." In their study, medical license, medical certification, and participation in insurance plan ranked highest with approximately 90% of respondents finding these factors important. The least important factors were recommendations from others and online reviews.

Manning *et al.* studied factors influencing patient selection of an orthopedic sports



**Figure 1.** Distribution of survey responses for the most important factor in selecting a hand therapist.

medicine physician using a 10-point scale, ranking 19 selection criteria from 1 (not important at all) to 10 (very important) [2]. The 3 most important criteria were board certification, “well known” for a specific area of expertise, and within insurance network. The least important factors were availability of onsite physical therapy facilities, practice group size and radio, internet, and television advertisements.

Bornstein *et al.* assessed factors influencing patients’ choice of a primary care doctor. The single most important factor was whether the doctor was board-certified [3].

Leach *et al.* looked at patient preference in “major themes” when choosing physicians and nurse practitioners/physician assistants [4]. For each of the two groups, “qualifications” (medical knowledge and training) were the most important factor over other factors such as “Bedside manner,” “Trust,” and “Feel more comfortable.”

Another study used an anonymous questionnaire to explore patient selection factors when choosing a spine surgeon [5]. Here too, patients rated board certification the most important factor with in-network provider status ranked 2<sup>nd</sup> highest. Advertisements were rated least important.

When researchers explored factors influencing patient selection of a foot and ankle surgeon via a survey of 824 consecutive patients, out of which 305 patients (37%) responded, the most important was board certification out of 25 different factors [6]. Advertisements were rated the least important.

As compared to prior reports, this survey focused specifically on the factors important to prospective patients in choosing a hand therapist, assuming they were given a prescription by their physician following an injury. Our findings are consistent with what others have noted for other professions. When choosing a healthcare provider, certification and insurance coverage are among the top influencing factors [1]-[6]. This information provides referring physicians with key insights that may be critical for patient compliance and continuity of care.

Understanding patient preference prior to making a referral can help eliminate barriers that lead to delayed medical treatment and patient non-compliance [13]. Considering that insurance coverage was deemed the most important factor in our study, the medical team should provide patients with detailed information about the options they have for hand therapy services so patients can make informed decisions regarding their care. This is an essential step in ensuring a successful patient transition because it may be the determining factor in patient compliance after a referral is made.

### **Limitations**

This study is limited in that we did not utilize a random sampling of the population, and instead used a convenience sampling of AMT workers. We did not obtain demographic information, but it has been shown that the AMT worker population is representative of the general internet population [9] [10] [11]. However, it is possible that our respondents differ in other unknown characteristics that affect our results.

Additionally, we did not include a text entry option for respondents to input a factor other than the 10 predetermined factors we provided. Although our survey was based on a literature review of similar studies assessing decision-making factors, we may have overlooked potential important factors.

### **Recommendations for Future Research**

Future research regarding patient choice in the orthopedic industry should be explored if we wish to meet the varying needs of our patients.

Across all healthcare settings, insurance coverage appears to be a significant factor influencing patients when it comes to choosing their providers. This carries with it the assumption that cost and accessibility are important to patients. Healthcare professionals and administrators are in a unique position to influence initiatives to ensure more equitable and efficient access to healthcare. Further research into how this impacts access to quality treatment for all individuals should be addressed.

### **Conflicts of Interest**

The authors have no conflicts of interest to report in the research, authorship, and/or publication of this article.

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