

Practice Analysis of ABC Certified Therapeutic Shoe Fitters



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Acknowledgements

On behalf of the American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc., (ABC), I am pleased to present the *Practice Analysis of ABC Certified Therapeutic Shoe Fitters*. This report describes the contemporary practice of ABC Certified Therapeutic Shoe Fitters practicing in the United States, and presents recommendations regarding ABC examination construction initiatives. It represents the culmination of eleven months of planning, execution, data analyses and writing.

A project of this scale depends on the hard work and commitment of many professionals, and I am pleased to acknowledge their contributions to the final product. ABC is indebted to the 11-member Practice Analysis Task Force (PATF) for the direction it provided. Its members—Michael J. Allen, CPO, FAAOP, William D. Beiswenger, CPO, FAAOP, Curt A. Bertram, CO, FAAOP, Jonathan D. Day, CPO, Dennis W. Dillard, C.Ped., CTO, Stephen B. Fletcher, CPO, Bernard D. Hewey, CPO, M. Edward Hicks, CO, C.Ped., Robert S. Lin, CPO, FAAOP, Robert M. Tardell, Cfo, CFts—worked with us diligently throughout the conduct of the study. Steven R. Whiteside, CO, FAAOP served as chair of the task force and devoted many hours to its success.

This project represents a substantial investment of ABC's financial resources and personnel and supports ABC's efforts in continuing to develop exemplary examination programs as well as providing information to primary and continuing education programs. I am grateful to Catherine A. Carter, Executive Director, for her support and guidance during this project. She provided thoughtful and consistent support for the study and developed a highly effective communication program in support of the study.

Donald D. Virostek, CPO
President

Introduction

The American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc. (ABC) contracted with Professional Examination Service (PES) to conduct an updated practice analysis of therapeutic shoe fitters including a validation survey of the entire population of ABC Certified Therapeutic Shoe Fitters (CFts).

WHY DO A PRACTICE ANALYSIS?

The goal of a practice analysis study is to determine current trends in patient care, technology and practice management in the provision of therapeutic shoes by ABC Certified Therapeutic Shoe Fitters.

WHY DO A VALIDATION STUDY?

The goal of the validation study was to identify unique priorities in the delivery of therapeutic shoes and inserts, e.g.: What highly critical tasks are performed by ABC certified therapeutic shoe fitters? What subset of knowledge and skill is essential at the time of initial certification? What procedures are the most frequently implemented?

WHAT WILL ABC DO WITH THE RESULTS OF THE STUDY?

The results are being used to generate defensible credentialing test specifications designed for entry-level therapeutic shoe fitters. The results will also be used to identify specific topics for in-service and/or continuing education and to provide guidance for education program enhancement in regard to curriculum review and/or programmatic self assessment.

Executive Summary

The specific objectives of the study were to:

- update the delineation of practice of therapeutic shoe fitters, including the domains of practice, tasks performed, and knowledge and skills utilized
- develop profiles of practice of certified therapeutic shoe fitters, including time spent in each domain and the criticality of domains
- quantify time spent in practice areas
- explore expected trends in the profession for the next three years
- develop defensible test specifications in connection with the multiple-choice certification exam administered to candidates for the credential

UPDATE OF DELINEATION

Subject-matter experts identified by ABC were appointed to a Task Force and attended a meeting to review and refine the existing delineation of practice to ensure the domains, tasks, knowledge and skills were comprehensive and contemporary. A major reorganization of the existing domain structure was undertaken to align the therapeutic shoe fitter domains with those of ABC's other credentialed professions. In addition, task statements were revised and added to more accurately describe the work of therapeutic shoe fitters and the knowledge list was updated and expanded. Task Force members reviewed the proposed survey rating scales and demographic questionnaire and suggested edits to more accurately capture elements of therapeutic shoe fitters' professional experience.

REVIEW

Subsequent to the meeting, Task Force members performed a critical review of the revised delineation. In addition to the Task Force, independent subject matter experts were also invited to participate in the review of the delineation. Suggestions to further refine and update the draft delineation were made, and participants edited the document to ensure clarity and completeness. All suggestions were compiled into a master document that was reviewed during a meeting that included a sub-committee of the Task Force.

SURVEY OF PRACTICE

PES developed a survey of practice, the Practice Analysis Survey of Therapeutic Shoe Fitters, including the following components:

- Introduction, including a description of the purpose of the survey and instructions for completing the survey
- Screening question, to ensure that the respondent had worked as a therapeutic shoe fitter
- Section 1: Tasks, including 32 tasks delineated in association with six domains of practice
- Section 2: Domains, including six domains of practice
- Section 3: Knowledge and Skills, including 32 knowledge and skills statements
- Section 4: Qualitative Questions, including four open-ended questions regarding expected changes in the profession over the next three years related to reimbursement, expanded responsibility, quality of care and credentialing (licensure and certification)
- Section 5: Background Information, including questions about the respondent's demographic characteristics, professional background, work setting and education

REVIEW OF DATA

PES analyzed the data, developed a description of practice and developed empirically derived test specifications.

SURVEY RESPONSE RATE

Two hundred thirty (230) ABC Certified Therapeutic Shoe Fitters responded to the survey for an overall response rate of 31.5%. This was derived by dividing the number of completed surveys by the number of valid invitations sent, defined as the number of invitations emailed minus those returned as undeliverable. This is a very good response rate for a long and complex online survey, and is sufficiently large to generate a valid test content outline for the CFts examination.

SECTION ONE

Results Related to Professional Background, Work Setting and Demographic Information

This section provides background information for the sample of respondents. The survey included a questionnaire regarding professional history and then addressed the respondent's work environment, educational background and demographic information.

Survey respondents averaged almost seven years experience fitting any kind of shoes, and more than half had three to five years of experience (see Tables 1 and 2).

TABLE 1
Years of Experience, Summary Data

Years of experience as therapeutic shoe fitter	5
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TABLE 2
Years of Experience, Frequency Distribution

1 to 2	21.9%
3 to 5	34.2%
6 to 10	27.6%
11 to 15	9.6%
16 or more	6.6%
Total	100%

However, respondents had less experience as certified therapeutic shoe fitters, averaging less than three years of experience in this credentialed role, as seen in Table 3. As the credential has only been offered since 2005, these findings are not surprising.

TABLE 3
Years as Certified Therapeutic Shoe Fitter

1 to 2	44.9%
3 to 4	36.4%
5 to 7	18.7%
Total	100.0%

Respondents indicated obtaining numerous intangible benefits from their CFTs credential, with 80% gaining increased responsibility and 53% gaining increased respect.

TABLE 4
Benefits of Credential

Increased independence	42.2%
Increased responsibility	80.0%
Increased respect	53.0%
Increased job opportunities	38.3%
Increased pay	28.3%
Other	10.4%

Total does not sum to 100%. Multiple responses permitted.

Consistent with the sampling plan which was to survey the population of CFTs, all respondents had the ABC CFTs credential. Some respondents held additional ABC credentials, with 11% holding the certified orthotic fitter credential, 7% holding the certified mastectomy fitter credential and 3% holding both other fitter credentials. Of those indicating they held *Other* credentials, the most frequently mentioned was Certified Pharmacy Technician (CPhT).

TABLE 5
ABC and other Credentials Held

Certified Fitter-therapeutic shoes (CFTs)	100%
Certified Prosthetic Assistant (CPA)	.0%
Certified Orthotic Assistant (COA)	.9%
Certified Prosthetic Orthotic Assistant (CPOA)	.4%
Certified Orthotic Technician (CTO)	.0%
Certified Prosthetic Technician (CTP)	.0%
Certified Prosthetic Orthotic Technician (CTPO)	.4%
Certified Fitter-orthotics (CFo)	10.9%
Certified Fitter-mastectomy (CFm)	6.5%
Certified Fitter-orthotics mastectomy (CFom)	3.0%
Certified Pedorthist (C.Ped.)	2.6%
Certified Prosthetist (CP)	.0%
Certified Orthotist (CO)	.4%
Certified Prosthetist Orthotist (CPO)	.4%
BOC Certified Mastectomy Fitter	.9%
BOC Certified Orthotic Fitter	4.3%
Pharmacist	3.5%
Other	16.1%

Respondents spent close to half their work time (47%) performing activities related to patient care. However, they also spent significant amounts of work time on administrative activities (23%) and in retail sales plus marketing (27%).

TABLE 6
Percentage of Work Time Performing Various Activities

Patient care	47.4%
Retail sales	17.7%
Marketing	9.5%
Administrative	22.9%
Other	2.5%

Respondents spent more than half their therapeutic shoe fitter work time fitting shoes (58%), with 42% of such time spent fitting inserts.

TABLE 7
Percentage of Time Fitting Shoes and Inserts

Shoes	58.0%
Inserts	42.0%

Almost half (47%) of respondents indicated that their primary work setting was a durable medical equipment facility, with one-fourth working at a pharmacy.

TABLE 8
Primary Work Setting

Pharmacy	25.0%
Retail store	7.9%
DME facility	46.9%
Hospital	.9%
Doctor's office	4.4%
O&P facility	5.7%
Veterans Affairs facility	1.3%
Pedorthic facility	1.8%
Mobile office	2.6%
Other	3.5%

In general, therapeutic shoe fitters worked at facilities with only a few other fitters. Fifty-six percent worked at facilities where they were the only therapeutic shoe fitter, and another 38% worked at facilities with two to four fitters.

I am the only therapeutic shoe fitter	55.3%
2 – 4	38.2%
5 – 7	2.6%
8 – 10	1.8%
10 or more	2.2%

Just over 40% of respondents worked independently, while 25% were supervised by a pharmacist and 16% were supervised by a pedorthist.

Orthotist	7.5%
Prosthetist	5.3%
Pedorthist	15.9%
Pharmacist	24.7%
Physician	7.9%
I work independently	42.3%
Other	14.5%

As shown in Table 11, almost half of respondents (47%) had a high school diploma or GED, 21% had a Bachelor’s degree, and 18% had an Associate’s degree.

**TABLE 11
Highest Educational Degree Earned**

High School/GED	46.9%
Associate’s degree	17.5%
Bachelor’s degree in O&P	.0%
Bachelor’s degree in other field or discipline	21.1%
Master’s degree	3.5%
Other	11.0%

**TABLE 12
Gender**

Male	27.0%
Female	73.0%

**TABLE 13
Age**

Under 25	2.2%
25 – 34	15.0%
35 – 44	22.9%
45 – 54	35.7%
55 – 64	20.3%
65 or over	4.0%

**TABLE 14
Racial/Ethnic Background**

African American/Black	4.7%
American Indian/Alaska Native	.5%
Asian	1.4%
Caucasian/White (non-Hispanic)	87.0%
Hispanic/Latino/Latina	3.7%
Mixed race	1.9%
Pacific Islander	.0%
Other (Not specified)	.9%

SECTION TWO

Results Relating to Domains of Practice

This section presents the results of the ratings related to the six domains of practice delineated in the survey.

The survey rated each of the domains on two ratings scales:

- *Percentage of Time*: Overall, what percentage of your work time did you spend performing the tasks related to each domain during the past year?
- *Criticality*: How critical is this domain to optimizing outcomes for patients and/or caregivers? 1=Not critical, 2=Minimally critical, 3=Moderately critical, 4=Highly critical

Table 15 presents the results of the *Percentage of Time* and *Criticality* ratings. Respondents spent the most time performing tasks in the *Assessment* domain (27%), followed by time spent in the *Implementation of the Treatment Plan* domain (22%). *Formulation of the Treatment Plan* took about 16% of time, and *Practice Management* took 15% of time. The remaining two domains occupied between 8% and 12% of time.

The mean *Criticality* ratings were highest for *Assessment* and *Implementation of the Treatment Plan* indicating these domains are close to highly critical. All other domains received mean *Criticality* ratings ranging from 3.3 to 3.7, indicating that respondents felt the tasks in these domains were moderately to highly critical. Accordingly, all six domains appropriately focus on activities that are critical to optimizing outcomes for patients and/or caregivers.

TABLE 15
Time and Criticality in Each Domain

	% of time	Criticality
Domain 1–Assessment		
Perform an assessment of the patient to obtain an understanding of patient’s prescribed needs	26.8%	3.9
Domain 2–Formulation of the Treatment Plan		
Develop a specific treatment plan to meet the patient’s needs, goals and expected outcomes	15.8%	3.7
Domain 3–Implementation of the Treatment Plan		
Perform the necessary procedures to deliver the appropriate therapeutic shoes/inserts, including minor adjustments	21.5%	3.8
Domain 4–Follow-up Treatment Plan		
Provide continuing patient care and periodic evaluation to assure/maintain/document optimal fit and function of therapeutic shoes/inserts	12.1%	3.4
Domain 5–Practice Management		
Comply with policies and procedures regarding the physical environment, business and financial practices, organizational management and human resources	15.0%	3.6
Domain 6–Promotion of Competency and Enhancement of Professional Practice		
Participate in personal and professional development through continuing education, promotion of the profession and organizational affiliations	8.2%	3.3
Other	.7%	

Numeric values of criticality scale: 1=Not critical, 2=Minimally critical, 3=Moderately critical, 4=Highly critical

Results Relating to the Tasks

As described earlier, respondents rated the tasks using two scales. This section presents the results of the rating related to the 32 tasks delineated in the survey.

The survey rated each of the domains on two ratings scales:

- *Frequency*: How frequently did you perform the task during the past year?
1=Never or rarely, 2=Occasionally, 3=Frequently, 4=Very frequently
- *Criticality*: How critical is this task to optimizing outcomes for patients and/or caregivers?
1=Not critical, 2=Minimally critical, 3=Moderately critical, 4=Highly critical

Table 16 shows the mean Frequency and Criticality ratings of tasks by respondents. The three highest-rated tasks are *Take appropriate measurements for therapeutic shoes/inserts*, *Fit therapeutic shoes/inserts and assess fit/function*, and *Ensure that therapeutic shoes/inserts are delivered as prescribed*, all with a mean Frequency rating of 3.8.

Two tasks received a mean Frequency rating below 2.0, indicating that they are performed from Never/Rarely to occasionally, meaning quarterly or less than monthly. These tasks are both in the *Promotion of Competency and Enhancement of Professional Practice* domain. Given the nature of these tasks, these levels of frequency are not surprising; these tasks do not describe day-to-day patient care, but rather activities that are performed on a less frequent basis.

All tasks were rated high on the *Criticality* scale, indicating that they are critical to optimizing outcomes for patients and/or caregivers. Seven tasks received mean *Criticality* ratings of 3.9, with more than 90% of respondents rating them as highly critical. An additional six tasks received mean ratings of 3.8, with between 80% and 89% of respondents, rating them as highly critical. Only two tasks received a mean criticality rating lower than 3.0. These were the same two tasks that received the lowest frequency ratings and had mean criticality ratings of 2.6, indicating they were minimally-to-moderately critical. The relatively low standard deviations (ranging from .3 to .8) for the *Criticality* ratings indicate that there is a high level of agreement amongst respondents as to the criticality of the tasks.

These ratings indicate that the tasks identified in the practice analysis are well targeted to identify the essential activities that comprise the practice of therapeutic shoe fitters. The pattern of *Frequency* and *Criticality* ratings validates the use of all these tasks in initiatives related to item writing and examination development.

TABLE 16
Task Frequency and Criticality Ratings

Assessment	Frequency	Criticality
Review patient’s prescription/referral	3.7	3.7
Take patient history (e.g., previous orthotic treatment, medical history, physical limitations, activity levels)	3.5	3.7
Perform a diagnosis-specific clinical examination (e.g., musculoskeletal, skin integrity, protective sensation)	3.2	3.5
Refer patient, if appropriate, to other healthcare professionals (e.g., physician, certified orthotist, certified pedorthist) for intervention beyond the Certified Fitter of Therapeutic Shoes scope of practice	2.8	3.8
Document assessment using established record-keeping techniques	3.7	3.8
Formulation of the Treatment Plan	Frequency	Criticality
Evaluate assessment findings to determine a treatment plan	3.5	3.6
Communicate to patient and/or caregiver about the recommended treatment and anticipated outcome(s)	3.6	3.7
Identify appropriate shoe based on patient evaluation (e.g., last, closure, toe box, style)	3.7	3.8
Identify appropriate insert based on patient evaluation (e.g., materials, coverings)	3.5	3.7
Implementation of the Treatment Plan	Frequency	Criticality
Communicate with patient and/or caregiver regarding potential risks/benefits, financial obligations and time involved in providing therapeutic shoes/inserts	3.7	3.7
Select appropriate shoe based on patient assessment (e.g., last, closure, toe box, style)	3.7	3.8
Select appropriate insert based on patient assessment (e.g., materials, coverings)	3.6	3.7
Take appropriate measurements for therapeutic shoes/inserts	3.8	3.9
Fit therapeutic shoes/inserts and assess fit/function	3.8	3.9
Determine patient’s ability to properly don/doff/fasten shoes	3.6	3.7
Educate patient and/or caregiver about the use of/maintenance of the therapeutic shoes/inserts (e.g., wearing schedules, hygiene, foot inspection, manufacturer’s warranty)	3.7	3.8

Implementation of the Treatment Plan	Frequency	Criticality
Ensure that therapeutic shoes/inserts are delivered as prescribed	3.8	3.9
Document treatment using established record-keeping techniques	3.7	3.8
Follow-up Treatment Plan	Frequency	Criticality
Obtain feedback from patient and/or caregiver regarding comfort and satisfaction with the therapeutic shoes/inserts	3.4	3.5
Re-assess fit/function of therapeutic shoes/inserts	2.9	3.4
Assess tolerance, compliance with wear schedule, ability to don/doff/fasten shoes and proper use of therapeutic shoes/inserts	3.2	3.4
Re-assess patient's skin integrity and protective sensation	2.7	3.3
Make adjustments to therapeutic shoe/insert based on assessment of patient's current status	2.9	3.6
Document follow-up using established record-keeping techniques	3.4	3.6
Practice Management	Frequency	Criticality
Comply with all applicable federal, state and local laws and regulations (e.g., CMS, HIPAA, FDA, ADA, OSHA)	3.9	3.9
Adhere to professional and ethical guidelines (e.g., ABC Code of Professional Responsibility)	3.9	3.9
Comply with established documentation requirements related to billing and claims development	3.8	3.9
Promote a safe and professional environment for patient care (e.g., universal precautions, ABC Facility Accreditation standards)	3.9	3.9
Promotion of Competency and Enhancement of Professional Practice	Frequency	Criticality
Maintain competence by participating in continuing education	3.0	3.6
Participate in product development research, clinical trials and outcome studies	1.6	2.6
Participate in the development, implementation and monitoring of public policy regarding the profession	1.6	2.6
Promote public awareness of the profession	2.7	3.2

Frequency values: 1=Never / rarely, 2=Occasionally, 3=Frequently, 4= Very frequently

Criticality values: 1=No critical, 2=Minimally critical, 3=Moderately critical, 4=Highly critical

Results Related to the Knowledge and Skills Statements

This section presents the results of the ratings related to the knowledge and skills statements delineated in the survey.

All respondents rated the knowledge and skills statements on two rating scales:

- *Criticality*: How critical is the knowledge or skill to optimizing outcomes for patients and/or caregivers?
- *Point of Acquisition*: At what point should this knowledge or skill be acquired by a therapeutic shoe fitter?

All knowledge and skills statements were rated very highly, with 15 of 32 statements receiving mean *Criticality* ratings of 3.8 or 3.9, indicating they are highly critical. The most highly rated statements were *appropriate shoe/insert selection for the diabetic foot* (93% highly critical) and *Foot measurement tools* (90% highly critical). The lowest knowledge and skills rating was *Shoe/insert warranty and warranty limitations* (M=3.3, between moderately and highly critical).

TABLE 17
Knowledge and Skill Statements

- Basic anatomy and physiology of the foot and ankle and their relation to proper shoe fitting
- Anatomical landmarks related to the foot and ankle
- Common foot pathologies related to the diabetic foot
- Signs, symptoms and risk factors associated with the diabetic foot
- Basic medical terminology for communication and documentation
- Interpreting prescription/referral documents
- Physical evaluation of the foot and ankle (e.g., skin integrity, monofilament)
- Universal precautions
- Interviewing techniques
- Communicating with patients, caregivers and referral sources
- When to refer patient to other healthcare providers
- Therapeutic shoe eligibility criteria (e.g., Medicare)
- Appropriate shoe/insert selection for the diabetic foot
- Foot measurement tools
- Shoe components (e.g., toe box, heel counter, openings, vamp, last)
- Common materials used in therapeutic shoes/inserts
- Therapeutic shoe/insert fitting criteria
- Weight-bearing assessment of therapeutic shoes/inserts
- Ambulatory assessment of therapeutic shoes/inserts

Tools to facilitate fit of therapeutic shoes/inserts (e.g., heat gun, low temperature oven, shoe stretcher)

Care/maintenance of therapeutic shoes/inserts

Assessing patient's ability to don/doff/fasten

Shoe/insert warranty and warranty limitations

Available patient education materials

Clinical documentation

Assessing patient's ability to comply with use and care instructions, (e.g., using interface when wearing shoes, checking skin for evidence of excessive pressure)

Material safety procedures and standards (e.g., OSHA, MSDS)

Scope of practice related to Certified Fitter of Therapeutic Shoes

Federal, state and local documentation requirements

Federal and state rules, regulations and guidelines

Protected healthcare and confidential information (e.g., HIPAA)

Professional ethical responsibilities (e.g., ABC Code of Professional Responsibility)

Qualitative Responses

Each respondent was given the opportunity to respond to a series of four open-ended questions regarding the therapeutic shoe fitter profession in general and aspects of their own work life in particular. Brief synopses of the most common responses to each question are provided below.

1. In the next three years, what changes in the profession do you think will occur with regard to reimbursement?
 - Reimbursements will decrease or be lower
 - In particular, Medicare will reduce reimbursements
 - The political climate will have an impact on reimbursements

2. In the next three years, what changes in the profession do you think will occur with regard to expanded responsibilities?
 - Greater accountability will be required from fitters
 - Requirements for documentation and paperwork will increase
 - More government regulations and requirements will be imposed

3. In the next three years, what changes in the profession do you think will occur with regard to quality of care?
 - If reimbursements go down, the quality of care will suffer
 - Pressures from lowered reimbursements and more paperwork will negatively impact what products will be available to patients
 - Access to care may be more limited

4. In the next three years, what changes in the profession do you think will occur with regard to credentialing (licensure, certification)?
 - Health insurances may require services be provided by certified individuals
 - Certification might be required for the provision of diabetic footwear
 - Credentialing requirements may increase