The history of articles in the American Journal of Occupational Therapy and its predecessors reflects trends and changes in professional terminology and the thoughts underlying that terminology. In this study, we investigate use of occupation, activity, and related terms across 9 decades of occupational therapy literature from the 1920s to the 2000s. The literature for 3 years of each of the 9 decades was scanned electronically. A random numbers table was used to equalize the number of words across decades, and a computer search function was used to determine each term’s frequency of use for each decade. Results indicated that the term occupation was widely used in the 1920s but then declined until the 1980s. With a rapid increase in use in the 2000s, the term occupation actually appeared more often than it did in the 1920s. The term activity appeared infrequently in the 1920s but gained popularity from the 1930s to the 1960s. From the 1970s to the 1990s, the use of both terms was quite low. This study shows that basic occupational therapy terminology has fluctuated dramatically over time. Given the essential link between terminology and theory, these changes arguably reflect authors’ and editors’ changing viewpoints on the profession’s fundamental nature.

In her Eleanor Clarke Slagle Lecture, Schwartz (2009) advocated the study of occupational therapy history as a way of discovering the profession’s essential nature. To understand something fully, one must understand its founding and evolution. Historical documentation of occupational therapy can enhance understanding of the profession’s contemporary ideas and movements. The writings of early occupational therapists illuminate early ideologies that have influenced the profession’s development (Schwartz & Colman, 1988).

According to Knapp (2000), words are time bound. “Like all language, [words] are bound to and bounded by the social formation in which they occur, the horizon of what is imaginable in a particular time and place” (Knapp, 2000, p. 8). The terms used within an organization or discipline at a particular point in time reflect the participants’ common worldview. Thomas Kuhn (1970) recognized the importance of a discipline’s technical literature as a reflection of a shared locus of attitudes toward solving the puzzles faced collectively. The historical study of occupational therapy terminology thus allows one to see how former colleagues put the “puzzle pieces” together. Authors’ words reflect both the potentials and the limitations of their thinking.

According to Feinstein and Thomas (2002), historians often have an interest in time series demonstrating long-term growth or decline or short-term fluctuations. “Some discussions of the analysis of time series suggest that it is possible to split the series into these different components, producing separate series for the trend, seasonal fluctuations (when applicable), regular fluctuations, and a residual of irregular movements” (Feinstein & Thomas, 2002, p. 22). As Schwartz and Colman (1988) stated,

Uncovering detail, knowing the relationship of particular details to a larger picture, and using that detail both to enhance the understanding of a historical
situating event or event and to guide additional data gathering may serve as part of a system of checks and balances that promotes accuracy in historiography. (p. 243)

Most historical inquiry is qualitative in nature, but historians are increasingly using quantitative methods. For example, Joshi (2002) wrote, “Quantitative methods expand literary history and make all sorts of discoveries possible, much the way that early maps did in the dissemination of knowledge about ‘new’ worlds” (p. 264). By developing a reliable method to count defined words or phrases, researchers are able to study relationships between variables and trends over time. In this study, we used quantitative analysis of two terms of special historical and current importance within the profession.

The founders’ passion for the term occupation is reflected in the archived literature. Dunton (1919, p. 10) wrote that “occupation is as necessary to life as food and drink… Sick minds, sick bodies, sick souls may be healed through occupation.” According to the Articles of Incorporation of the National Society for the Promotion of Occupational Therapy (NSPOT; 1917), the first purpose of the new profession was “the advancement of occupation as a therapeutic measure” (p. 1). The enthusiasm for the concept of occupation can also be seen in the writings of Adolph Meyer (1922) and Eleanor Clarke Slagle (1922), who described a system of “occupational analysis” (p. 16) as an essential component of education for occupational therapists.

The term activity also has historical resonance within the profession of occupational therapy. Adolph Meyer (1922) used the term as follows: “The proper use of gratifying activity appeared to me a fundamental issue in the treatment of any neuro-psychiatric patient” (p. 3). In a 1948 paper, Gail Fidler did not use the term occupation; rather, she used the term activity, as in the following sentence: “Every effort should be made to include others which can be satisfied by means of participation in the activity” (p. 286). Whereas Slagle (1922) used the term occupational analysis, Fidler (1948) focused on activity analysis in her early writings. Later in Fidler’s career, the term activity appeared in her writings as an alternative to activity; in an article published in 2000, Fidler discussed “the match of person to an occupation or activity” (p. 100). In the frequently cited Philosophical Base of Occupational Therapy (American Occupational Therapy Association [AOTA], 1979, p. 785), the term activity appeared 5 times, whereas the term occupation appeared only once, in parentheses after purposeful activity. More recently, in the first and second editions of the Occupational Therapy Practice Framework: Domain and Process (AOTA, 2002, 2008), both terms appeared often, with occupation and its derivatives appearing more often than activity.

To summarize, anecdotal evidence has suggested fluctuations in the usage of the key terms occupation and activity over occupational therapy history. These apparent fluctuations need to be studied in a rigorous way. Terminology reflects thinking and worldview. As Kielhofner (2004, p. 11) put it, “In looking for purposes, processes, and patterns in occupational therapy literature, one finds that authors have used different terms to refer to the knowledge they are discussing, developing or applying.” The historical analysis of key terms can illuminate the nature and purpose of the profession, as seen by the authors in the American Journal of Occupational Therapy, AOTA’s official journal, and its predecessors. Is it possible that occupational therapy history can be described as a series of transitions marked by relatively frequent or infrequent uses of terms occupation and activity?

According to Kielhofner (2004), a historical progression of three successive paradigms has marked occupational therapy. The first paradigm, the paradigm of occupation, started early in the 20th century. In this scheme of occupational therapy history, the scientific model adopted by the field of medicine in the late 1940s caused a crisis in occupational therapy, which led to occupational therapy’s second paradigm, the mechanistic paradigm. Rather than focus on patterns of occupation, therapists sought to fix their patients’ underlying impairments, often through contrived equipment. In the 1970s, however, the inadequacy of the mechanistic model created a new crisis that has led to the contemporary paradigm, which once again celebrates people’s occupational nature, according to Kielhofner.

This study has the potential to provide some support to Kielhofner’s (2004) theory of history. If the term occupation appears frequently in the early days of occupational therapy, then loses its currency in the 1950s and 1960s, and then regains usage in recent years, support for a three-stage theory of occupational therapy history is provided. As in all research, however, a single study cannot answer all the questions raised by a complex theory of occupational therapy history. Moreover, the current research has implications for occupational therapy in addition to providing support for a particular theory of occupational therapy history.

In this study, we identify the changing frequency of use of the terms occupation and activity across 9 decades in the literature as represented by the official journal of the American Occupational Therapy Association. Of course, peer-reviewed articles in any profession’s flagship journals reflect people’s ideas, not the organization’s official policy.
Therefore, this study is of terms used by authors, and it is not a study of official policy. To provide maximum clarity concerning historical usage, we (1) explore alternative meanings of terms (e.g., activity sometimes refers to reflexes, not purposeful doing); (2) analyze syntactical derivatives, including plurals and adjectival forms (e.g., the term occupational performance deserves special treatment); (3) avoid misleading terms (e.g., it is well known that the term occupational therapy has remained the constant title of the profession, so this constant becomes an error term in the type of analysis intended in this study), and (4) measure the term task because it might have substituted for either occupation or activity in various time periods.

Method

Database

In January 1923, NSPOT became AOTA (2005). Given that this study involves data from 1922, technically this study is of official publications of AOTA and its predecessor, NSPOT. In this investigation, we analyzed 9 decades of articles from AOTA’s flagship publications, specifically Archives of Occupational Therapy (1922–1924), Occupational Therapy and Rehabilitation (1925–1946), and the American Journal of Occupational Therapy (AJOT, 1947–2004).

Sampling was necessary for the practical reason that these journals contained millions of words that could be analyzed. From a statistical perspective, random sampling is best, but in this case, as in most cases of quantitative research, random sampling on individuals (each word as the unit of measurement) was not feasible (i.e., the entire database with millions of words would have to be numbered and accessed, and then some unknown technology would have to move somehow to each selected word while skipping other words). Purposeful stratification is the best alternative to random selection, and we decided to block the data by decade. The 10-based decimal system is the common way of blocking units in our culture, and we thought that readers would most readily comprehend data blocked by decade. We then decided to sample 3 years of each decade: the second, third, and fourth, so the first years to be analyzed were 1922, 1923, and 1924 and the last were 2002, 2003, and 2004. We made this decision for several reasons: (1) sampling ≥3 years would exceed our resources, whereas 3 years would provide extensive information (≥200,000 words per decade; see the next paragraph); (2) this sampling method would include all 3 years of the Archives of Occupational Therapy (in a historical study, it seemed important to ensure inclusion of the earliest available data); and (3) changes over time, that is from decade to decade, are most likely to be clear if 3 consecutive years are studied with a relief in observation for 7 years.

The next sampling decision was to equalize the number of words by decade so that the data from each decade were equally weighted in terms of the unit of measurement. Word counts among the decades varied from 214,716 to 1,326,036. The decade with the least amount of words was the 1920s; therefore, this decade became the baseline for equalization across the other 8 decades. The next sampling problem was determination of the method of equalization. Given that random elimination of words was not feasible, possible options included some form of stratification (e.g., by article or by page) or randomized elimination by article or page. We decided to randomly eliminate by article for the following reasons: (1) when feasible, random selection is superior to nonrandomized stratification, and (2) it was practically feasible to randomly select and analyze articles after we numbered them, whereas it was not feasible to select and analyze individual pages, which of course are much more numerous than articles. Articles are not the same length from year to year (modern articles tend to be longer), but pages have the same disadvantage (modern journals have more words per page). Assuming that articles often range from 3,000 to 7,000 words, our method ensured that approximately 30–70 articles per decade represented the sample for the decade, so that a single article was unlikely to bias the final result for the entire decade. After deletion of entire articles to approach the goal of 214,716 words per decade, pages were then randomly deleted until the goal was more closely approached, and finally words were randomly deleted until equality at 214,716 words per decade was achieved.

The articles that were included in the study were retrieved from the Eastern Michigan University library. Literature before 1950 was found on microfilm and microfiche, so copies were made directly from the microfilm and microfiche machines. Journal pages after 1950 were photocopied from bound volumes.

Instrumentation

Microfilm and microfiche copies and photocopies were scanned by a Hewlett Packard 7210 Officejet scanner (Hewlett-Packard, Palo Alto, CA) and imported into a Sony Vaio VGN–T150 computer (Sony USA, New York, NY) through the Microsoft Office Document Imaging program (Microsoft Corporation, Redmond, WA). This program stores images by page layout in a format that stores text for optical character recognition. The find
function of this program was used to locate each of the terms under investigation. All text, article titles, footnotes, tables, and figures were included. Not included in the study were advertisements, headings, references, and reports of policies or meetings of the national association.

Procedure

A pilot study was conducted on the same journals as in this study, but not in the second, third, and fourth years of each decade. The pilot study indicated practical problems of counting and classification of adjectives and abbreviations. The pilot study also revealed that simple counting of activity and occupation could be misleading. For example, how is the adjective occupational to be computed (e.g., occupational performance and occupational therapy)? Also, sometimes the word occupation is clearly limited only to job classifications that have nothing to do with the occupational therapy process, and sometimes the word activity refers to biological activity, not human activity. Mutually exclusive categories were developed on the basis of the underlying desire to distinguish theoretically meaningful instances of occupation and activity from other instances and to permit the study of the related term task. The following 12 categories were submitted to the software’s find function and to subsequent interpretation by the data collector:

1. Occupation(s) and occupational were coded as things done voluntarily by patients, clients, or others used as examples of doing, while excluding Categories 2, 5, 6, 7, and 12.
2. Occupational performance required no special coding rule.
3. Activity(ies) was coded as things done voluntarily by individual people or by nonprofessional groups, as in therapeutic group activities, while excluding Categories 4, 7, 8, and 9.
4. Activity(ies) of daily living required no special coding rule except that it also included abbreviations ADL and IADL.
5. Irrelevant use of occupational or (rarely) occupation(s) was coded as the use of an adjective before therapy, therapist, aide, teacher, class, building, work, center, or department (e.g., occupational therapy or occupations teacher).
6. Job-oriented occupation(s) or occupational was coded as job classification or vocation only when the author was clearly not discussing occupation as doing, as therapy, or as part of occupational therapy theory (e.g., occupational classifications).
7. Occupational activity required no special operationalization.
8. Biologically oriented activity(ies) was coded as reflexes or totally automatic human or nonhuman motility.
9. Organization-oriented activities or activity was coded as things done by organizations or professional working groups (e.g., activities of a task force).
10. Task(s) was coded as actions to be done voluntarily by patients, clients, or others used as examples of doing (e.g., task analysis).
11. Organization-oriented task(s) was coded as actions not related to therapy, including actions to be done by organizations or professional working groups (e.g., task group).
12. Military-oriented occupation(s) was coded as military seizure and administration.

These 12 categories are mutually exclusive operationalizations useful for accurate counting, but they are not conceptual definitions identifying each term’s constituents, denotations, and connotations. Identification of the essences of each term as it was used from author to author and from time to time is beyond the scope of this article or any single research paper.

The plan for data analysis called for combining certain categories. The total occupation score was the sum of Categories 1 and 2. The sum of Categories 3 and 4 provided a total score for the term activity.

Interrater Reliability

A study of interrater reliability determined the rating system’s objectivity and consistency. Bree Bauerschmidt and a graduate research assistant trained by applying the operational definitions to articles published in years that were not used in the final analysis (not in the second, third, and fourth years of each decade). Articles used in training spanned the early years, the mid-years, and the recent years of the journals under study. After training, Bauerschmidt and the research assistant independently analyzed the literature in the second, third, and fourth years of each decade in accordance with the procedures described earlier. The intraclass correlation (ICC) used is the formula recommended by Shrout and Fleiss (1979) for testing agreement when there are two observers and the instrumentation is not anticipated to be generalized in future use. As documented in Table 1, the ICC values were consistently high, ranging from .971 to a perfect 1.0.

Results

The distribution of occupation is strikingly kurtotic and U-shaped across the 9 decades, with high rates of occurrence in the 1920s and the 2000s and relatively low rates in other
Table 1. Intraclass Correlation Coefficients (ICCs) Across 27 Years (9 Decades × 3 Yr)

| Variable                                      | ICC  
|-----------------------------------------------|------
| Occupation                                    | 0.998 |
| Occupational performance                      | 1.0  |
| Activity (not as reflex or as work of therapists in association with each other) | 0.998 |
| Activity of daily living                      | 0.985 |
| Occupational activity                        | —    |
| Task (not as organization related)            | 0.996 |
| Total occupation                              | 0.999 |
| Total activity                                | 0.999 |

Note. The ICC is the fixed-effect model for determining agreement between two raters without expectations of future measurement (Shrout & Fleiss, 1979). Total occupation is the sum of Categories 1 and 2 (occupation[s]-occupational plus occupational performance), and total activity is the sum of Categories 3 and 4 (activity[ies] plus activity of daily living, including ADL). Incidence was too rare to compute a meaningful ICC.

decades, especially in the 1960s, 1970s, 1980s, and 1990s (here we must recall that 1992–1994 were sampled, not the late 1990s). Table 2 and Figure 1 show these trends. The term occupational performance tends to occur at relatively low rates in all decades, with especially low rates in certain decades associated with relatively low rates of the term occupation in those same decades.

The pattern for activity is different. Relatively high rates for this term occurred in the 1930s to 1960s and increased again in the 2000s. The term activity of daily living occurred rarely but increased somewhat in the 2000s. Biologically oriented reflex activity was relatively uncommon and peaked in the 1960s.

In the 1980s and 1990s, use of the term task exceeded the use of occupation and activity combined. However, the term task has never approached the popularity of activity and occupation in their peak years. Like activity and occupation, use of task peaked in the 2000s. If the sum of task, activity, and occupation is computed per decade, the total for the 2000s is more than 9 times the total for the 1970s. Hence, the very low rates of occupation and activity in the 1970s and 1980s cannot be fully explained by a preference for the term task.

Discussion

The use of the terms occupation and activity throughout the 9 decades varied widely in the official publications of AOTA and its predecessor, NSPOT. The term occupation appeared dominant in the 1920s, but it appeared to be replaced in whole or in part by the word activity in the 1940s, 1950s, and 1960s. Neither term received much use in the 1970s and 1980s, and the term task, although used to some extent, did not replace them. The use of both occupation and activity—especially occupation—surged in the 2000s. Remember that the cause of the surge was not an increase in publications because the number of words searched across decades was equal.

The data patterns are generally supportive of Kielhofner’s (2004) Theory of Occupational Therapy, with some qualification. As could be predicted from this theory, rates of the term occupation in the 1920s and 2000s were relatively high. The dramatic decline and then resurgence in the use of the term occupation do suggest paradigm shifts whereby authors use entirely different terminology at different stages of the profession’s development. The assumption is explicitly made that use or nonuse of the term occupation reflects ideas and values guiding clinical reasoning and, ultimately, the experiences of therapist and client, patient, student, resident, consumer, and so forth.

Table 2. Frequency of Use of Key Terms

<table>
<thead>
<tr>
<th>Decade</th>
<th>Occupation</th>
<th>Occupational Performance</th>
<th>Activity</th>
<th>ADL</th>
<th>Occupational Activity</th>
<th>Activity: Reflex</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920s</td>
<td>472</td>
<td>13</td>
<td>92</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>84</td>
</tr>
<tr>
<td>1930s</td>
<td>195</td>
<td>5</td>
<td>241</td>
<td>2</td>
<td>0</td>
<td>73</td>
<td>54</td>
</tr>
<tr>
<td>1940s</td>
<td>77</td>
<td>0</td>
<td>264</td>
<td>0</td>
<td>0</td>
<td>43</td>
<td>56</td>
</tr>
<tr>
<td>1950s</td>
<td>36</td>
<td>2</td>
<td>397</td>
<td>6</td>
<td>1</td>
<td>36</td>
<td>61</td>
</tr>
<tr>
<td>1960s</td>
<td>12</td>
<td>0</td>
<td>350</td>
<td>11</td>
<td>0</td>
<td>82</td>
<td>97</td>
</tr>
<tr>
<td>1970s</td>
<td>2</td>
<td>0</td>
<td>59</td>
<td>5</td>
<td>0</td>
<td>18</td>
<td>64</td>
</tr>
<tr>
<td>1980s</td>
<td>13</td>
<td>4</td>
<td>51</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>102</td>
</tr>
<tr>
<td>1990s</td>
<td>16</td>
<td>17</td>
<td>150</td>
<td>13</td>
<td>2</td>
<td>0</td>
<td>227</td>
</tr>
<tr>
<td>2000s</td>
<td>520</td>
<td>70</td>
<td>365</td>
<td>49</td>
<td>4</td>
<td>53</td>
<td>294</td>
</tr>
</tbody>
</table>

*Occupation(s) and occupational as patient/client/person doing excluding other usages.

*Occupational performance as scanned.

*Activity(ies): patient/client/person doing excluding other usages.

*Activity(ies) of daily living, ADL, and IADL.

*Occupational activity(ies) as scanned.

*Activity(ies) as biological reflexes or totally automatic motility.

*Task: patient/client/person doing excluding other usages.
Nelson (1997) is among the researchers who have posited that an explicitly occupational approach involves clinical reasoning concerning occupational forms that are particularly meaningful and purposeful to the individual, who must be conceptualized not only as a set of impairments but as a choice-making, richly experienced being actively making sense from and finding purpose in the social and physical world. Our interpretation of occupational therapy texts in the 1920s and 2000s is in alignment with Kielhofner’s belief that a commitment to occupation as the method of therapy is paradigmatic in nature. When occupation is the focal viewpoint of the therapist, the entire therapeutic process begins, proceeds, and ends differently from any nonoccupational approach.

The qualification in terms of support for Kielhofner’s (2004) theory is that the data do not support the theory’s timing of paradigmatic shifts. Whereas Kielhofner stated that the original paradigm of occupation did not face a crisis until the 1950s, use of the term occupation was already in decline in the 1930s, when usage was only 41% of that in the 1920s. By the 1950s, use of occupation was only 16% of 1920s levels. This finding suggests that the paradigm shift began to occur decades earlier than theorized. The data also provide evidence that the contemporary paradigm of occupation did not gain force until after 1994, whereas Kielhofner theorized that the crisis occurred in the 1970s. It is possible that early advocates of occupational terminology were literally ahead of their times.

When planning this research, we speculated that the terms activity and task might have substituted for the term occupation in periods marked by little use of the term occupation. Representatives of other professions, including medicine, might have preferred the term activity for its interdisciplinary neutrality (i.e., the term occupation is inherently biasing toward occupational therapy). The data support this idea for the 1930s, 1940s, 1950s, 1960s and, perhaps, 1990s but definitely not for the 1970s and 1980s. We were particularly surprised that the term activity of daily living and its derivatives appeared so infrequently in this time period. The question arises, If authors in these 2 decades were not writing about occupation, activity, task, or even activity as reflex, all of which had relatively low rates of use, what indeed were they writing about? It is possible to speculate that they tended to write about disease processes, impairments, basic abilities (sensory, motor, perceptual, cognitive, affective, interpersonal), assistive technology, and other devices such as splints, but this area extends beyond the operationalizations of the current study and requires further research.

A conceptual limitation to this study is that the same word might mean different things when used by different authors and when used at different times. In this study, we objectively clarified usage rates of terms; however, additional questions remain as to the exact definitions of terms such as activity and occupation. In the later stages of her career, Fidler (2000) considered the terms interchangeable. However, Pierce (2001) argued for a clear distinction between the two terms, with occupation conceptualized as a person’s unique experience and with activity defined as a culturally shared idea about a type of doing. Taking a different tack, Polatajko, Davis, Hobson, et al. (2004) are among those who see a different distinction between activity and occupation, with an occupation being made up of a set of meaningful activities. Providing a third perspective, Nelson (1997) argued that the term activity lacks precision in that it often refers to nonhuman doing and simple motility, as in volcanic or atomic activity, whereas occupation always involves intentionality. Definitions of key terms vary not only from author to author but sometimes within the same work. Nelson (2006) argued that the definitions of key terms in the first edition of the Occupational Therapy Practice Framework (AOTA, 2002) vary from section to section in ambiguous and sometimes contradictory ways. Full semantic analyses of occupation, activity and, perhaps, other terms such as adaptation are necessary in terms of both historical inquiry and current conceptual modeling. These analyses should include consideration of formal definition and ostensive definition (what the words refer to when used in the context of the text).

A methodological limitation of this study is that we studied only 3 years per decade, which is a problem particularly for the years 1995–2001. Did the use of occupation increase linearly in those years, from very low rates to very high, or was the change categorical? Although we probed the official publications of AOTA and its predecessor, another fruitful area of study would be AOTA’s official policies. Would the same patterns of
terminology emerge over time? Another area for future investigation is use of terminology in other countries, including non–English-speaking countries. Nelson and Jonsson (1997) reported anecdotal evidence of changes in terminology and confusion regarding occupational terminology across countries and language systems. Another area of future research could involve other tests of Kielhofner’s (2004) Theory of Occupational Therapy History. Specifically, Kielhofner (2004, pp. 47–55) maintained that the profession’s first paradigm of occupation did not involve a high value on quantitative research regarding small units of movement and affect; rather, this value did not develop until the paradigmatic crisis of the 1950s. However, definite examples of advocacy for precise and scientifically valid measurement and experimentation are found in the occupational therapy literature published in the founding era (Baldwin, 1919; NSPOT, c. 1917–1922). Finally, it would be interesting to discover whether an association exists between the disuse of the term occupation and various proposals to change the name of the profession over time.

We interpret this study’s data to indicate a widespread resurgence in occupational terminology after an extended period during which the term occupation was rarely used. We agree with Wiemer’s (1979) eloquent analysis and advocacy concerning both terminology and direction for the profession:

Our exclusive domain is occupation. We must refine, research, and systematize it so that it becomes evident, definable, defensible and salable … [Occupation] is our latent power if we will but keep it as our focus and direction. (p. 43)

Contrasting occupation and activity, Wilma West (1984) stated that the term occupation “is infinitely more expressive and encompassing than ‘purposeful activity’” (p. 22). In agreement with Wiemer and West, we advocate that

[t]he ultimate statement of pride and confidence in the profession will be the full adoption of the term occupation in the language of the profession, with each occupational therapist taking personal responsibility for explaining to the world why we are called occupational therapists. (Nelson, 1997, pp. 22–23)

We hope that this article documenting longitudinal slices of occupational therapy history provides some evidence of the profession rediscovering itself. ▲

Acknowledgment

We sincerely appreciate the support provided by the Graduate Student Research Support Award, administered by the College of Graduate Studies of the University of Toledo Health Science Campus. The assistance of Christopher Willinger in testing interobserver reliability is appreciated.

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