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## Productivity Standards and the Impact on Quality of Care: A National Survey of Inpatient Rehabilitation Professionals

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# Productivity Standards and the Impact on Quality of Care: A National Survey of Inpatient Rehabilitation Professionals

## Abstract

*Background:* Skyrocketing health care costs have resulted in significant changes to reimbursement rates in health care. The result has increased pressure to be as efficient as possible while maintaining high-quality care. The purpose of this exploratory study was to examine health care professionals' perceptions on whether and how productivity pressures have impacted the quality of care in therapy practice.

*Method:* A survey was disseminated nationally to inpatient rehabilitation facilities.

*Results:* Two hundred and fifty-seven surveys were opened. Of these completed surveys, 154 participants completed the closed-ended questions and 109 participants completed the open-ended questions. Outcomes indicated that clinicians are concerned that growing productivity pressures are impacting the quality of care that they provide. In addition, the findings are consistent with the literature that an emphasis to maintain productivity standards is resulting in unprofessional practices.

*Conclusion:* Further research needs to be conducted to generalize these findings to the larger health care network. More advocacy for policy changes and the need for a unified strategic plan among the rehabilitation professions is indicated.

## Comments

Disclosure Statement: The authors report no conflicts of interest and have nothing to disclose.

## Keywords

rehabilitation, professional practice, efficiency, productivity

## Cover Page Footnote

We would like to thank Debra Collette of The Sage Colleges for her contribution to the analysis of the qualitative data collected for this study.

## Credentials Display

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Today, there is widespread agreement that the costs of health care have climbed beyond sustainable levels (Kennedy, Maddock, Sporrer, & Greene, 2002). The Balanced Budget Act of 1997 was the first of many initiatives taken to reduce health care costs (H.R.2015, 1997). Health care professionals across the United States have experienced an influx of policy and regulatory changes heavily impacted by a series of political, economic, social, and cultural influences aimed at curbing costs (American Occupational Therapy Association [AOTA], 2016b; Foye, Kirschner, Brady Wagner, Stocking, & Siegler, 2002). During the coming decades, occupational therapists, physical therapists, and speech-language pathologists (collectively referred to as practitioners for the purpose of this paper) will be significantly impacted by changing reimbursement systems in efforts to reduce costs (AOTA, 2016a).

The Royal College of Nursing (2008) stated that “productivity is measured by balancing healthcare inputs, such as pay and prices, with outputs—including the quantity and quality of care delivered” (p. 7). Productivity is a market-driven concept aimed at reducing overall health care costs while increasing access and the quality of services provided (Berwick, Nolan, & Whittington, 2008; National Health Service [NHS]: Institute for Innovation & Improvement, 2011). Kennedy, Maddock, Sporrer, and Greene (2002) suggested that the change in how productivity is measured has resulted in increased practitioner accountability for the use of time and treatment interventions in direct patient care. For example, practitioners are being held accountable for a quantity of billable units per day, the number of patients seen per day, and increasing productivity percentages, all of which can add significant emotional stress to the practitioner. If quality of care is not maintained at the same time that productivity demands increase, it not only may result in harm to patients, but also could impact the facility’s success as measured by patient satisfaction, referrals, and reputation. In many cases, outcomes and reimbursement reports are now updated to reflect workplace productivity versus treatment interventions. This has led to questionable clinical practices (Medicare Payment Advisory Commission [MedPAC], 2017).

Productivity policies and practices raise new questions about the focus of rehabilitation interventions. Patient-centered care, which focuses on the individual and his or her specific needs, is dependent on several attributes of practitioners, specifically their sense of moral responsibility (Lusk & Fater, 2013). Practitioners must have a positive and caring attitude and the ability to build positive relationships with their patients and individualize treatment plans to patient needs (Lusk & Fater, 2013). However, this is harder to accomplish as practitioners are experiencing increasing levels of emotional stress, burnout, and moral distress (Painter, Akroyd, Elliot, & Adams, 2003; Jameton, 1984). Jameton (1984) wrote that moral distress often arises because practitioners know what the right course of action is, but institutional policies make it difficult to impossible to take the right course of action. It is also known that practitioner stress and burnout impact patient safety (Berlanda, Natvig, & Gunersen, 2008; Hall, Johnson, Watt, Tsipa, & O’Connor, 2016). Furthermore, practitioners are experiencing increased role conflict and professional alienation because of productivity pressures, indicating that the rising burden of productivity poses more of a threat to their professionalism. Moreover, practitioners indicate that they feel strained by productivity pressures and feel an increasing sense of insecurity in their jobs to meet expectations (Hildenbrand, 2016; Kennedy et al., 2002). Rehabilitation professionals are being asked to do more with less.

More importantly, in a recent ethics commission advisory opinion, AOTA indicated that productivity standards mandated by health care organizations are arbitrary and unrealistic (AOTA,

2016b). They articulated that the hectic and fast-paced environment is limiting efficiency and that financial interests are superseding the benefit to the client (AOTA, 2016b). Cutter and Polovoy's (2014) findings are consistent with the advisory opinion published by AOTA. They found that practitioners who work at 85% productivity levels are being asked to complete documentation off the clock. By Medicare standards, reimbursement only occurs with direct face-to-face treatment time. With 85% or higher productivity rates, practitioners are feeling pressured to treat patients at the highest reimbursement rates even when it is not appropriate and to delay discharge when the benefits of therapy are exhausted (AOTA, 2017; Cutter & Polovoy, 2014; Hildenbrand, 2016). New evidence is showing that skilled nursing facilities are specifically under increasing scrutiny because of their billing practices. Several high-profile settlements have emerged from investigations out of the Centers for Medicare and Medicaid Services, the Department of Health and Human Services, and the Office of the Inspector General because of fraudulent billing practices (AOTA, 2017).

Rehabilitation professionals are left questioning the ethical implications of these changes. Ethics, as defined by AOTA, is the "character and customs of societal values and norms that are assumed in a given cultural, professional, or institutional setting as ways of determining right and wrong" (AOTA, 2016b, p. 291). A consensus statement by AOTA, the American Physical Therapy Association (APTA), and the American Speech-Language-Hearing Association (ASHA) strongly emphasized that clinical judgment is central to making informed decisions about patient care. Treatment should always be designed in the client's best interest and be medically necessary (AOTA, 2016a).

Research regarding productivity and its relationship to quality of care in the clinic has been completed, but much of it is more than a decade old. Journals including *The Archives of Physical Medicine and Rehabilitation* and the *American Journal of Physical Medicine and Rehabilitation* dedicated several articles to this topic. However, these articles have been anecdotal in nature (Foye et al., 2002). In 1988, *The American Journal of Occupational Therapy* dedicated a journal volume to these ethical issues. AOTA also commissioned a work group to review and update the code of ethics to address the profession's core values and principles amid changing health care reform (AOTA, 2016a, 2016b). One of the only empirical studies to examine the ethical implications on clinical practice was from a doctoral dissertation written by Hansen (1984); however, in the years since, health care reform measures have continued to drive practice patterns. In 2008, and again more recently in 2015, a survey was distributed by the AOTA Ethics Commission through the AOTA Special Interest Section forums to determine what triggers moral distress in practice. In 2015, 84% of the 1,956 respondents indicated that excessive pressure to meet productivity standards triggered moral distress (Slater, 2016). This was an increase from the 61% of the respondents in 2008. Productivity requirements and administrative directives that override clinical judgment and quality are consistent with escalation of AOTA member concerns that are reflected in the results of this survey (Slater, 2016). The need for more current research on the ethical implications of these changing reimbursement patterns is strongly suggested.

The myriad issues voiced by practitioners regarding productivity expectations and quality led to this research study. The purpose of this exploratory research study was to examine rehabilitation professionals' perceptions of the impact that productivity policies and practices have on the quality of care and ethics of clinical practice. Specifically, we queried occupational and physical therapists, speech-language pathologists, managers, and organizational administrators working in inpatient rehabilitation settings. The specific research questions for this study included:

1. What are rehabilitation professionals' perspectives on productivity and its potential impact on quality of care?
2. How do rehabilitation professionals view policies and procedures that impact quality of care?
3. Do differences exist between practitioners' and managers' and administrators' views regarding productivity standards?

## Method

### Research Design

An exploratory cross-sectional survey design was used to examine rehabilitation professionals' perceptions about clinical productivity standards. Using a series of closed- and open-ended questions allowed the researchers to measure different components of attitude and behavior regarding the impact of productivity policies on practice between practitioners and managers and administrators. In addition, it provided further insight into how productivity may both positively and negatively impact actual clinical experience and day-to-day operations, along with examining the knowledge and attitudes among the health care professionals to document potential disparities in perception (Portney & Watkins, 2015). The Creighton University institutional review board provided approval and all respondents provided informed consent prior to initiation of the study.

### Respondents

The sample included occupational therapists, physical therapists, speech-language pathologists, rehabilitation managers, and administrators currently working in an inpatient rehabilitation setting. The rehabilitation managers and administrators were not required to hold degrees in any one of the three clinical professions. However, they had to directly oversee the rehabilitation program and have experience with productivity standards and patient outcomes. The practitioners were required to have at least 3 years of clinical experience in their current position, providing them the chance to experience changes in productivity standards. Managers and administrators were required to be in their current position for at least 3 years, with direct supervision of rehabilitation professionals.

### Measurement

A thorough literature review of this topic yielded no evidence of instruments to assess rehabilitation professionals' perceptions of productivity and quality of care. Therefore, the first three researchers created a survey that included 13 closed-ended questions and four open-ended questions. The open-ended questions allowed for elaboration on the concepts measured in the closed-ended questions. An expert panel review ( $n = 3$ ) and a pilot study ( $n = 5$ ) were completed to assess the content validity of the survey; the results indicated minor wording modifications to improve clarity. The closed-ended questions were rated using variable 5-point Likert-type scales. Examples include *strongly disagree* (1) to *strongly agree* (5) and *never* (1) to *frequently* (5).

### Procedure

The primary researcher accessed a national fieldwork database to identify acute-care hospitals. Use of the fieldwork database system provided access to more than 100 fieldwork sites. The primary researcher sent an email to potential respondents, including a cover letter with a link to the anonymous online survey. Using snowball sampling, the respondents were asked to disseminate the survey link to other providers and practitioners to whom they were connected directly and indirectly. The survey remained open for 10 weeks. Reminder emails were sent out every 2 weeks to increase the response rate.

## Data Analysis

The quantitative data were analyzed using univariate and bivariate analyses. First, we evaluated the frequency distributions of all variables. Second, we conducted Chi-square tests to analyze the strength of the association between categorical variables and used Mann-Whitney tests to evaluate differences between managers and therapists in terms of their median survey item scores. Where two-by-two contingency tables showed cell counts of fewer than five, we conducted two-sided Fisher's exact Chi-square test to evaluate the association between variables. Stata15.1 was used for quantitative data analysis (StataCorp, 2017).

The researchers used content analysis to analyze the open-ended questions (Schreier, 2012). The HyperRESEARCH software platform aided in identifying and categorizing major elements that emerged from open-ended questions on the survey (HyperRESEARCH 3.7.3, 2015). Three researchers immersed themselves in the data by reading and rereading all responses. Then the first, second, and fifth authors coded line by line, generated a list of codes, and met to identify major elements that emerged. The findings were consolidated and refined until the first, second, and fifth authors came to agreement on three major elements (see Table 1).

**Table 1**

*Coding Frame*

| <b>Element/Theme</b>          | <b>Sub-themes</b>                                | <b>Key Words</b>   |
|-------------------------------|--|--|
| Element 1: Productivity       | Percentage of Time                               | Numbers Game<br>Efficiency<br>Percentage of Time   |
|                               | Services Provided                                |  |
|                               | Administrative Duties                            | Ordering DME<br>Research<br>Documentation<br>Collaboration<br>Education  |
| Element 2: Impact on Practice | Direct Face-to-Face Time                         |  |
|                               | Impact on Practitioner                           | Increased Pressure<br>Decreased Quality of Treatment<br>Clinician Burn-out<br>Unethical Treatment & Billing<br>Leaving Positions |
|                               | Change in how they approach job responsibilities | POS Documentation<br>Decreased Time Spent with Patient<br>Longer Hours<br>Short Cuts   |
| Element 3: Call for Change    | Change how we measure productivity               | Documentation<br>Set-up & Clean-up Tasks<br>Administrative Tasks   |
|                               | Reasonable Requests                              |  |

*Note.* DME = durable medical equipment; POS = point of service.

The research team completed several actions to establish trustworthiness of the data. The researchers employed reflexivity methods by writing out and discussing biases, along with keeping an electronic journal. The electronic journaling further allowed the researchers to keep an audit trail and provide a thick description of the analysis process (Curtin & Fossey, 2007). Working as a team, the researchers practiced researcher triangulation, which allowed for confirmation of the final elements (Curtin & Fossey, 2007). Peer debriefing occurred with an experienced qualitative researcher to ensure the authenticity of the findings from the data analysis (Curtin & Fossey, 2007). Finally, the use of mixed methods also allowed for methodological triangulation, as the researchers compiled all survey data to make sense of it as a whole (Curtin & Fossey, 2007).

### Results

Two hundred and fifty-seven surveys were opened and started and 121 people completed the closed-ended questions. There were 109 responses to the open-ended questions. In the sample of complete cases, there were 22 rehabilitation managers or administrators, 72 occupational therapists or occupational therapy assistants, 18 physical therapists or physical therapy assistants, and eight speech-language pathologists. Most often, they had been in their current position for 3 to 10 years. The participants in this study were relatively young; managers were most commonly in the 31 to 40 years of age group, while roughly 70% ( $n = 67$ ) of the therapists were either 21 to 30 or 31 to 40 years of age. Managers and therapists did not differ in their demographic characteristics (see Table 2).

**Table 2**

*Participant Characteristics (N = 121)*

|  | <b>Managers<br/>(n = 22)<br/>n (%)</b> | <b>Therapists<br/>(n = 98)<br/>n (%)</b> | <b>p-value</b> |
|--|--|--|----------------|
| <b>Role</b>  |  |  |                |
| Manager or Administrator   | 22(100)                                |  |                |
| Physical therapist, occupational therapist, or speech-language pathologist |  | 98(100)                                  |                |
| <b>Years in current role</b>   |  |  | 0.948          |
| 3-10   | 16(73)                                 | 72(73)                                   |                |
| 11-20  | 4(18)                                  | 19(19)                                   |                |
| 21+  | 2(9)                                   | 7(7)                                     |                |
| <b>Age</b>   |  |  | 0.072          |
| 21-30  | 1(5)                                   | 32(33)                                   |                |
| 31-40  | 12(55)                                 | 35(36)                                   |                |
| 41-50  | 5(23)                                  | 23(24)                                   |                |
| 51-60  | 3(14)                                  | 6(6)                                     |                |
| 60+  | 1(5)                                   | 2(2)                                     |                |

### Quantitative Results

The respondents rated their attitudes toward productivity standards. Because of asymmetrical data, the researchers used the Mann-Whitney test, a non-parametric approach to evaluating the equality of medians between two independent samples, rather than independent-samples *t*-tests. In many cases,

the managers and therapists were similar in their assessments of productivity standards. However, they differed from one another on three important survey items. In all three cases, managers were, on average, more supportive of productivity standards compared to therapists.

The first item asked the respondents to rate on a scale, ranging from *very consistent* to *not consistent*, the extent to which the definition of productivity (defined as “the quality, state, or fact of being able to generate, create, enhance, or bring forth goods or services”) was consistent with the participants’ workload expectations. The managers tended to find this definition significantly more consistent with their workload expectations (Mdn = 4) than the therapists (Mdn = 2,  $U = 5.69$ ,  $p = .017$ ).

Second, the respondents were asked to rate the degree to which productivity requirements impacted their ability to provide high-quality care. In this case, the managers reported that productivity requirements positively impacted their provision of care (Mdn = 2.5) compared to the therapists (Mdn = 2,  $U = 8.16$ ,  $p = .004$ ). Third, the respondents indicated the extent of their agreement with whether productivity standards impact providers’ ability to provide patient-centered care. The therapists tended to have less agreement (Mdn = 1) with this statement compared to the managers (Mdn = 2,  $U = 7.88$ ,  $p = .005$ ).

There were 19 respondents (16% of the sample) who reported that they falsified documents, all of whom were therapists. In this case, the researchers used a two-sided Fisher’s exact test to evaluate the strength of the association between reporting falsifying documents and being a manager or a therapist. This analysis suggests a statistically significant relationship between being a therapist rather than a manager and reporting falsifying documents ( $X^2 = 5.07$ ,  $p = 0.22$ ).

**Table 3**

*Differences in Attitudes Toward Productivity Standards Between Managers and Therapists (N = 121)*

| Survey item  | Managers                    | Therapists                   | U test statistic | p-value |
|--|-----------------------------|------------------------------|------------------|---------|
|  | (n = 22)<br>Median<br>(IQR) | (n = 98)<br>Median,<br>(IQR) |                  |         |
| Productivity is defined as “the quality, state, or fact of being able to generate, create, enhance, or bring forth goods and services.” Is this definition consistent with workload expectations for productivity? (1 = <i>not consistent</i> ; 5 = <i>very consistent</i> )   | 4(2,4)                      | 2(2,4)                       | 5.69             | .017    |
| Productivity requirements are imposed by institutions to increase revenue and/or to reduce costs; this can result in a rise in the number of patients seen per day by one provider. Has this impacted your ability to provide high quality of care in your setting? (1 = <i>significant negative impact</i> ; 5 = <i>significant positive impact</i> ) | 2.5(2,3)                    | 2(1,2)                       | 8.16             | .004    |
| Do you feel that productivity standards have impacted health care practitioners’ ability to provide patient-centered care? (1 = <i>definitely yes</i> ; 5 = <i>definitely not</i> )  | 2(1,2)                      | 1(1,2)                       | 7.88             | .005    |
| Do you ever keep patients on caseload when skilled care is no longer indicated? (1 = <i>never</i> ; 5 = <i>frequently</i> )  | 2(1,2)                      | 2(1,2)                       | 0.28             | 0.597   |
| Is the issue of productivity being handled in an ethical manner at your facility? Please choose the best answer (1 = <i>strongly disagree</i> ; 5 = <i>strongly agree</i> )  | 4(2,5)                      | 3(2,4)                       | 1.52             | 0.218   |
| Do you experience ethical dilemmas with billing for services rendered? (1 = <i>never</i> ; 5 = <i>frequently</i> )   | 2(1,2)                      | 2(2,2)                       | 1.06             | 0.304   |
| Do you count time as treatment that is not permitted by Medicare or other payer regulations as treatment? (i.e.,   | 1.5(1,2)                    | 2(1,3)                       | 0.41             | 0.524   |



rest time, time spent traveling to patient's room) -  
Please choose the best answer (1 = *never*; 5 =  
*frequently*)

|  |               |               |   |  |
|--|---------------|---------------|---|--|
| Have you ever been asked to falsify or change documentation to misrepresent time spent or services delivered? (1 = yes; 2 = no)  | <b>2(2,2)</b> | <b>2(2,2)</b> | <b>5.06</b><br><b>(Fisher's exact test)</b> | <b>0.022</b><br><b>(Fisher's exact test)</b> |
| If you felt an ethical violation was occurring in your facility, would you be comfortable to report it? Please choose the best answer (1 = <i>extremely comfortable</i> ; 5 = <i>extremely uncomfortable</i> ) | 1(1,2)        | 1(1,2)        | 2.09  | 0.149  |

Note. Boldface indicates statistical significance at  $p < .05$ .

## Open-Ended Questions

A summary of the findings from the open-ended questions revealed three elements that describe the relationship that productivity has with the ability to provide client-centered, quality care and the impact that these issues are having on practice. Elements included a discussion on the quantity, not the quality, of treatment interventions; essential job functions as more than just face-to-face time; and the impact of rising productivity standards on practice.

### Quantity Not Quality

Practitioners and rehabilitation managers alike agree that productivity is a calculated measure or "percentage of time" dedicated to direct patient care. However, the difference between the two groups' opinions is demonstrated in the language they use when discussing productivity. One respondent provided a value-laden judgment, stating that productivity is an "unethical standard set for companies to make revenue . . . while decreasing quality of care." The practitioners felt that productivity made them more accountable for their time; however, it also impacted the quality of treatment provided. One practitioner wrote, "I am ALWAYS aware of each minute and will actively avoid any non-billable time with pts/families, despite that time being in the pts best interest."

Rehabilitation managers agreed that productivity is defined by a unit of measurement. One manager wrote productivity is "the time spent with a patient divided by the amount of time when you are in the building completing the job." Another wrote, "it keeps me accountable to the patients and my facility." However, these respondents were more likely to draw insights from a management perspective, driven by the need to produce a product and generate revenue. Language from the managers' side included terms such as "billable time," "relative-value units," and "profit margins."

### Essential Job Functions of Practitioners are More Than Face-to-Face Time

The rehabilitation professionals agreed that productivity is more than just face-to-face time. Both the practitioners and managers agreed that documentation, ordering equipment, collaborating with team members, and doing research are essential and should be captured under the definition of productivity. One practitioner wrote, "I would change them (productivity standards) to account for the various things we have to do for our patients that we can't bill but are still needed services." A difference in responses between the practitioners and the rehabilitation managers included the language used to respond to the survey questions. Productivity is an important topic to practitioners, and many see non-billable job functions as essential and, at times, unrecognized. One respondent wrote,

Productivity can be affected by other aspects, such as making phone calls, talking to nurses, answering call lights; but because I am in the building and still on the clock and not in direct contact with the patient, I cannot bill for that time. It indirectly affects my productivity but it is necessary to do those things while at work.

The rehabilitation managers answered from a policy and procedure perspective. They agreed with the practitioners but also discussed the institutional demands and reimbursement requirements. To balance institutional demands and practitioner needs, the managers acknowledged that policy changes need to occur. However, the rehabilitation managers stated that changes need to occur at the top, and that current reimbursement models do not allow for lower productivity if the facility is to remain in business.

### **The Impact that Rising Productivity Standards are Having on Practice**

Both the practitioners and rehabilitation managers reported that productivity standards impacted clinical practice. While the practitioners reported increased “clock-watching” and work-related stress, the rehabilitation managers reported increased reluctance to take on additional projects at their facility. One respondent wrote, “I find it next to impossible to provide high-quality, client-centered, functional treatment and to document at the pace required.” While another wrote that it “makes for a culture of therapists who work off the clock and don’t get paid for their time they spend doing other job responsibilities.” The managers indicated that they are taking fewer fieldwork students as they did in the past because of the productivity demands.

There were two respondents who indicated that they were not experiencing any problems with productivity at their facilities. One manager wrote, “we really aren’t seeing any impact, since we aren’t holding our partners to a productivity measure.” These responses were outliers to the general responses received.

All of the respondents agreed that an expanded definition of productivity needs to be considered and current productivity demands of 85% to 95% need to be reduced. Many stated that 75% productivity is realistic and allows them to complete their essential job functions without stress. One individual wrote that we need to “change time spent with patients from being controlled by insurance [companies] to being determined by therapy needs.” Another wrote that health care organizations need to “listen to your therapist! Let their clinical judgments balance patient care and productivity.”

### **Discussion**

This survey provided a preliminary profile of the perceptions that the practitioners and their managers have regarding productivity and its impact on quality of care in practice. The characteristics of the respondents represented a wide range of educational degrees and years of experience. Although preliminary, the results indicated that the respondents identified a difference in the quality of care they provide with rising productivity standards, which included more focus on quantity of treatments per day and less emphasis on quality. The respondents identified that productivity can impact practitioners’ choice of treatment interventions, judgment, and how they complete other essential job functions daily, with many reporting that they are less client-centered and more focused on billable minutes. Of interest was the involvement of 16% of the respondents (19 practitioners) indicating that they were falsifying documentation. This singular finding requires further study, as do the causes of this falsification and possibilities for changing these disturbing behaviors. Further, the variation in responses to closed-ended and open-ended survey questions regarding the impact of productivity requirements on the quality of care provided suggests that this impact is multifaceted, rendering it difficult for practitioners to assess this impact. Again, further research is needed to clarify this finding.

The rehabilitation professionals reflected on the impact that rising productivity standards had on the quality of care. Most of the respondents indicated that productivity demands impacted practice and their ability to be client-centered. These results are consistent with Forsberg, Swartwout, Murphy, Danko, and Delaney (2015), who found that the increasing emphasis on quality services that are more

cost-effective have influenced practice and the ability of practitioners to maintain a client-centered and individualized approach. Changes to the Medicare reimbursement system over the past 2 decades has resulted in less reimbursement for “nontherapy ancillary services,” encouraging facilities to provide therapy services for financial incentives at the cost of clinical judgment (Cutter & Polovoy, 2014, p. 38). The practitioners in this study identified that their jobs are more than just the face-to-face time that is captured by current reimbursement systems. The respondents called for a broader definition of productivity to include these other essential job functions. This study lends support to the existing literature suggesting that productivity requirements have resulted in less emphasis on client-centered practices in treatment (Kennedy et al., 2002).

### **Limitations**

The study was an exploratory survey design with a small sample of inpatient rehabilitation professionals, which limits generalizability. The data collected was self-reported, which may lead to recall bias. Although clinical degrees were reported for the practitioners, it is unknown whether the administrators and managers held clinical degrees because of the anonymity of the survey, which may lend itself to different professional perspectives. In addition, because of the use of snowball sampling, there were uneven representations from the different professions participating in this study, which limits both generalizability and indicates that the results may not accurately represent all rehabilitation professions. Other limitations include concerns over privacy and anonymity with the online survey platform and the potential for nonresponse bias. Finally, although the survey instrument was pilot-tested by five occupational therapists, its validity and reliability have not been formally assessed.

### **Future Research**

Maintaining rehabilitation professionals’ core values while meeting growing productivity expectations of health care organizations is challenging. Further research to assess additional factors that impact quality of care must be addressed, including completing in-depth interviews to enhance the understanding of the survey research. The impact that productivity has on hospital readmissions and student learning and students’ ability to transition successfully into this profession needs to be explored. Lastly, safety issues that may arise from rising productivity demand further attention.

### **Conclusion**

This study responded to a need for further research on how productivity standards impact client-centered quality of care in clinical practice. Understanding the impact that higher productivity standards have on practice is essential to increase awareness of the influence it can have on quality of care. The quantitative data revealed that a difference existed in rehabilitation professionals’ perceptions regarding productivity and the impact it has on quality of care. Rehabilitation professionals’ essential job functions include direct patient care and other indirect services, such as documentation of services provided and care coordination with other health care professionals and patients’ families. A focus on direct patient care may cause practitioners to feel that quantity of therapy minutes is more important than the quality of care provided to patients.

Further analysis of productivity and its measurement is recommended to help address essential job functions that are not considered in the current definition of productivity. The ethical implications that rising productivity demands have on practice must be acknowledged. Many of the respondents reported feeling like their professional values were incongruent with their job requirements. Rehabilitation professionals are encouraged to approach this issue strategically and devise an action plan and policy agenda to support clinical practice amid changing productivity challenges. The AOTA Code

of Ethics Principle 2, H., states that practitioners should “avoid compromising the rights or well-being of others based on arbitrary directives (e.g., unrealistic productivity expectations, falsification of documentation, inaccurate coding) by exercising professional judgment and critical analysis” (AOTA, 2015, p. 4). Occupational therapists and other health care professionals can benefit from understanding how productivity challenges may impact practice, specifically client-centered quality care.

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