Educational Session to Improve the Knowledge and Confidence of State Agency Surveyors in Deficiency Citation of Immediate Jeopardy Findings in Nursing Homes

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DOCTOR OF NURSING PRACTICE (DNP) PROGRAM

A DNP PROJECT

TITLE: Educational Session to Improve the Knowledge and Confidence of State Agency Surveyors in Deficiency Citation of Immediate Jeopardy Findings in Nursing Homes

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Spring 2020

The George Washington University
EDUCATIONAL SESSION TO IMPROVE SURVEYOR KNOWLEDGE

Educational Session to Improve the Knowledge and Confidence of State Agency Surveyors in Deficiency Citation of Immediate Jeopardy Findings in Nursing Homes

A Project Presented to the Faculty of the School of Nursing
The George Washington University
In partial fulfillment of the requirements
For the Degree of Doctor of Nursing Practice
By

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Team Member
Jose J. Gomez, Ph.D.

Spring 2020
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Abstract

**Background:** The oversight of nursing homes is a shared federal-state responsibility. Under the agreement with Centers for Medicare and Medicaid Services (CMS, 2018), state survey agencies assess nursing homes using standard surveys. Several studies indicate that the type of deficiencies issued to nursing facilities varies significantly by state, suggesting inconsistency in the survey process for issuing deficiencies. For example, variation in Immediate Jeopardy (IJ) citations among state agency surveyors has been the subject of reports from the Government Accountability Office (GAO, 2019) and the Office of the Inspector General (OIG, 2014).

**Objective:** To determine if a 1-hour educational session about revised IJ regulations can improve the knowledge and confidence of state surveyors regarding the detection and identification of immediate jeopardy findings in a nursing home, increasing immediate jeopardy citations.

**Methods:** Cross-sectional descriptive study design used; 37 Nevada State Agency surveyors participated in the education session. A reliable, 14-item self-administered questionnaire was distributed among all state agency surveyors before, immediately after, and two months after the educational intervention. The obtained data were analyzed by SPSS (version 26.0) using descriptive statistics and ANOVA at a significant level of $\alpha = 0.05$.

**Results:** Of the thirty-seven participants, 75.7% (n = 28) were females, 37.8% (n = 14) had both a bachelor’s degree and master’s degree, and 45.9% (n = 17) had more than twenty years of experience. Analysis of variance (ANOVA) used to compare the means (baseline versus posttest, baseline versus two months post-intervention), resulted in $[F(5,8) = 2.99, p = .081]$ and $[F(7,6) = 24.12, p = .001]$. 


Conclusion: This study demonstrated that knowledge and confidence regarding the detection and identification of immediate jeopardy findings in a nursing home were gradually improving among Nevada state surveyors. A better understanding of what surveyors believe about their working knowledge of the IJ regulation will assist the DNP student in devising an effective educational intervention for them. Longitudinal studies are recommended to explore this topic, with the use of case studies as a promising approach.

Keywords: Immediate Jeopardy, Beliefs, Knowledge, Confidence, Deficiency Citation, Nursing Homes, Educational Session, State Agency Surveyors
Background and Significance

Institute for Healthcare Improvement (IHI) has been a strong advocate for quality and better health care delivery, encouraging collaborations among all professions toward improving outcomes (Martin & Mate, 2018). The Triple Aim is a framework developed by IHI in 2008 to assist health care systems in improving the patient care experience (including quality and satisfaction), reducing the per capita cost of health care, and improving the health care population (Whittington, Nolan, Lewis & Torres, 2015).

Many adverse events in healthcare delivery resulted in establishing regulatory mandates by Federal entities such as the Centers for Medicare and Medicaid Services (CMS). The mission of CMS was to “ensure effective, up-to-date health care coverage and to promote quality care for beneficiaries.” The purpose of the Survey and Certification Group, Division of Nursing Homes (DNH) at CMS, was “to optimize the health, safety, and quality of life for people living in nursing homes” (CMS, 2017). This DNP quality improvement project intended to advance nursing practice at the state and national levels to ensure the promotion of quality of care and quality of life through education sessions by providing valid interpretation and application of nursing home regulations by state surveyors across the country.

According to Castle & Ferguson (2010), nursing home care and long-term care are synonymous. Skilled nursing homes provide a broad range of long-term care services –intended to assist people who are disabled and elderly who have limitations in their ability to perform self-care or to live independently. An estimated 1.4 million Americans live in nursing homes on any given day, and approximately 1 in 5 suffer harm during their stay (Mollot, 2017). Medicare and Medicaid programs fund nearly 78% of residents in nursing homes. Almost all nursing homes
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are Medicare, or Medicaid certified, and federal regulation has a significant role in ensuring the quality assurance of nursing homes (AHCA, 2013 and OIG, 2013).

The Centers for Medicare & Medicaid Services (CMS), an agency within the Department of Health and Human Services (HHS), defines the quality standards that skilled nursing facilities must satisfy in order to receive reimbursement from Medicare and Medicaid. CMS enters into agreements with each state government for the surveyors to conduct required surveys, or evaluations, of the state’s nursing homes (Castle & Ferguson, 2010 & CMS, 2018). A range of statutorily defined sanctions is available to help safeguard that nursing homes maintain compliance with quality requirements. CMS is also responsible for monitoring the adequacy of state survey actions (CMS, 2018).

A nursing home must be certified by CMS annually to receive payment under the Medicare and Medicaid programs. To certify a nursing home, a state surveyor completes at least a Life Safety Code (LSC) survey (CMS, 2018, pg. 30), and a Standard Survey no less than once every 9-15 months (CMS, 2018, pg. 30). With CMS oversight, State survey agencies are responsible for conducting and monitoring federal health care standards.

A standard survey entails a team of state surveyors, spending several days in the nursing home to assess compliance with federal long-term care facility requirements. The investigation determines whether care and services provided meet the needs of the residents and whether the nursing home is providing adequate quality care, such as preventing avoidable pressure sores, abuse, and neglect, or accidents, reduction of off-label use of antipsychotic drugs, increase staff stability, reduce hospital readmission rates.
A team of state surveyors conducts a comprehensive on-site evaluation of compliance with federal quality standards during a standard survey. Surveys are unannounced and performed at any time (CMS, 2018, pg. 33). Surveyors cite a deficiency when a nursing home fails to meet one or more of the Federal requirements. The surveyor assigned the severity rating based on the extent of the harm level. The surveyor determined the scope based on the prevalence of how many residents have been affected. A provider is noncompliant to one or more of the requirements of participation when the facility has caused serious injury, harm, impairment, or death to a resident. An IJ citation requires a nursing home to take immediate corrective action (CMS, 2018, pg. 60).

Even though CMS guides surveyors on the parameters and procedures for citing IJ, there remains inconsistency in surveyors’ citations. To ensure consistency, CMS Regional Offices review citation data to identify outliers. Such review enabled CMS San Francisco to identify an issue with the State of Nevada failing to cite IJs at rates consistent with national norms. The data revealed IJ citations by Nevada surveyors lower than the national level: Nevada (0.0% in 2016, 1.3% in 2017, 1.0% in 2018).

Nevada Department of Health and Human Services (NDHHS), Bureau of Health Care Quality and Compliance (HCQC) is under contract with the Centers for Medicare and Medicaid Services to conduct all federal certification inspections. The health surveys are performed by teams of HCQC employees (usually three or four people) who are specialists in inspecting nursing home care. The surveyors have backgrounds in nursing, social work, dietetics, health care administration, and counseling. The newly hired nursing home surveyors were required to meet the Surveyor Minimum Qualifications Test (SMQT). This test addressed the knowledge, skills, and abilities needed to conduct surveys in Long term care (LTC) facilities and
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implemented Sections 1819(g)(2) and 1919(g)(2) of the Social Security Act (CMS, 2018, pg. 23).

CMS Quality, Safety and Oversight Group Division of Nursing Homes identified the State of Nevada as an outlier due to the “inconsistent rates of immediate jeopardy citations” specifically, Nevada had 0.0% in FY2016, 1.3% in 2017, 1.0% in 2018, (CMS, 2019). Closer examination (see table 1) of the data revealed that there were 58 nursing homes surveyed, 178 surveys conducted in 2016 (no IJ citations); 58 nursing homes surveyed, 155 reviews undertaken in 2017 (2 IJ citations), and 62 nursing homes surveyed, 192 investigations did 2018 (2 IJ citations). The Nevada state survey agency (SSA) indicated that in 2016, 2017, and 2018, they were rebuilding due to several positions that were vacated by qualified federal surveyors. During these same years, the SSA struggled to hire, train, and retain qualified surveyors. Surveyors perceived as not always adequately recognizing IJ circumstances as deficiencies.

Table 1. Percentage of Nursing Home Surveys with Immediate Jeopardy Citations in NV

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of Active Nursing Home Providers in Nevada</th>
<th>Number of Nursing Home Surveys</th>
<th>Number of Surveys with Immediate Jeopardy Citations</th>
<th>Percentage of Surveys with Immediate Jeopardy Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>58</td>
<td>179</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2017</td>
<td>58</td>
<td>155</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>2018</td>
<td>62</td>
<td>192</td>
<td>2</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

National Avg: 1.6%

Note: Data is from QCOR: Nursing Home Citation Frequency Report for FY 2016-2018 for scope and severity greater than or equal to “J.”

Data in Table 1 reflects no change in the median number of IJ citations statewide from FY 2016 through FY 2018. The 2016 to 2017 report depicted a 1.3% increase in the
percentage of the survey with IJ average citations. While the identification of IJs has traditionally been somewhat subjective, there was a recognition that the percent of IJs identified in comparison to the national average could be a measure of the SSA’s citation practice towards identifying IJs and the experience level of the SSA’s surveyors.

**Problem Statement**

Poor quality of care was a significant concern in US nursing homes; nearly 60 percent of these occurrences were considered preventable (OIG, 2014). The oversight of nursing homes was a shared federal-state responsibility. Under an agreement with Centers for Medicare and Medicaid Services (CMS), the State survey agencies assessed nursing homes using standard surveys. A review of citations indicated that the type of deficiencies issued to nursing facilities varies significantly by state, suggesting variation in the survey process of issuing deficiencies.

CMS defined IJ as a situation in which a resident receiving care has suffered or is likely to suffer injury or impairment as a result of the skilled nursing facilities' noncompliance with one or more requirements of participation (CMS, 2018). It is the most serious citation a facility can receive and resolve within 23 days of being cited or participation in Medicare and Medicaid will be terminated (CMS, 2018). Variation in IJ citations between state agency surveyors has been the subject of reports from the Government Accountability Office (GAO, 2019) and the Office of the Inspector General (OIG, 2014) of the federal Department of Health and Human Services.

The data analysis conducted by the Division of Nursing Homes, as shown below, demonstrates that there were variations in immediate jeopardy citations among the states within the ten CMS regional offices (CMS, 2019). The data revealed that these states during 2016,
2017, and 2018 had less than 0.2% or zero immediate jeopardy citations, greater than 10% citations, or an inconsistent trend in citations in comparison to the national mean for any year.

- New Hampshire (0.0% in 2016, 0.8% in 2017, 0.7% in 2018), Boston Regional Office
- Rhode Island (0.0% in 2016, 0.0% in 2017, 3.6% in 2018), Boston Regional Office
- Vermont (0.0% in 2016, 0.0% in 2017, 1.7% in 2018), Boston Regional Office
- Puerto Rico (0.0% in 2016, 28.6% in 2017, 0.0% in 2018), New York Regional Office
- Delaware (0.0% in 2016, 1.2% in 2017, 3.4% in 2018), Philadelphia Regional Office
- District of Columbia (0.0% in 2016, 1.4% in 2017, 1.4% in 2018), Philadelphia Regional Office
- New Mexico (11.2% in 2016, 13.5% in 2017, 12.9% in 2018), Dallas Regional Office
- Kansas (7.7% in 2016, 10.9% in 2017, 5.4% in 2018), Kansas City Regional Office
- Montana (9.9% in 2016, 10.5% in 2017, 4.8% in 2018), Denver Regional Office
- Wyoming (0.0% in 2016, 1.1% in 2017, 1.0% in 2018), Denver Regional Office
- Nevada (0.0% in 2016, 1.3% in 2017, 1.0% in 2018), San Francisco Regional Office
- Alaska (3.7% in 2016, 10.0% in 2017, 0.0% in 2018), Seattle Regional Office

(CMS, 2019).

According to CMS Secretary Verma (2019), the release of the new immediate jeopardy guidance was part of CMS' wider initiative to ensure safety and quality care in nursing homes, and the continuing efforts to strengthen surveillance for different healthcare settings. CMS developed new interpretive guidance for surveyors to strive toward consistency in the survey process and citation of deficiencies. Also, an Immediate Jeopardy template developed to ensure surveyors collect the evidence needed to meet the criteria for IJ. The template was a tool
to help convey the IJ situation to the healthcare provider so that the facility can take preventive action quickly against further harm.

CMS was seeking to ensure consistency in the determination and application of immediate jeopardy. The CMS Data Analysis, Monitoring, and Accountability (DAMA) project team for the Western Division (of which this DNP student is a member) conducted a root cause analysis (RCA) to determine why the State of Nevada had recurring documentation of no Immediate Jeopardy determinations. Cause and effect diagram performed to identify the root causes and contributing factors. According to OIG, 2008 & Mallot, 2017 the causal factors were due to inconsistent survey focus, unclear Federal guidelines on citing deficiencies (vague and contradictory application of actual harm criteria), the lack of a standard review process for draft survey reports, lack of awareness of IJ potentials, lack surveyor skills, survey flaw in detection and accuracy, and lack of resources and time (identified but not cited).

**Purpose**

The purpose of this quality improvement project was to determine if a 1-hour educational session about the revised Immediate Jeopardy regulations can improve the state agency surveyors’ knowledge and confidence in the detection and identification of IJ findings in a nursing home. Before the release of the revised Immediate Jeopardy regulations, there were inconsistencies in how states interpreted the rules and conduction of federal monitoring surveys, which made it difficult to assess the quality of care delivered.

**Specific Aim**

To determine the effectiveness of a 1-hour educational session on state surveyors’ knowledge and confidence in detecting IJ situations in Nevada nursing homes.
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Research Question

Does a 1-hour educational session about immediate jeopardy regulation improve the knowledge and confidence of state surveyors regarding deficiency citation of IJ findings in a nursing home?

Review of Literature

A challenge of this section came with the minimal availability of research on surveyor or clinician knowledge, belief, and confidence concerning immediate jeopardy regulations in nursing homes. Despite the lag of nursing home research in examining deficiency citations, some information on the potential for harm existed in nursing homes due to patient safety and quality of care issues. Several research studies found on patient safety initiatives in nursing homes; these include research on the following areas: reduction in pressure ulcers, safe reduction in unnecessary hospitalizations, prevention and management of infections, and safe administration of antipsychotic drugs; and available educational program guided the development of this quality improvement project.

The literature review accomplished by using the following databases: PubMed, SCOPUS, and the Cumulative Index to Nursing and Allied Health (CINAHL) to search for the period between 2004-2019. The key search terms and phrases included: “Quality of care in nursing homes, avoidable hospitalization, harm in residents, infection control training and prevention, patient safety, pressure ulcers, elder abuse, neglect, elder mistreatment, antipsychotic agents and dementia. Eleven articles, which included the terms mentioned above, were identified, and additional items were found by reviewing articles referenced by those authors. The Johns
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Hopkins Evidence Appraisal tools (Dearholt & Dang, 2017) were used to evaluate each article. The materials rated at a strength range of level III through IV and quality level B.

Quality of Care

According to CMS Secretary Verma (2019), alarming stories reported about people who experienced harm, especially in nursing homes. Cases included sexual, physical, or mental abuse, neglect, and severe and life-threatening injuries or impairments. For this reason, new guidance was issued by CMS to take steps to identify IJ and promptly enforce if the facility failed to meet any of the regulatory requirements to ensure state agency guaranteeing the quality and safety of residents (Verma, 2019).

Also, abuse deficiencies cited in nursing homes have doubled from 430 in 2013 to 875 in 2017 (GAO, 2019). According to GAO (2019), 10% of all nursing homes reported for abuse had caused actual harm to at least one resident under the care and protection of the facility. In the literature on violence synthesized by Castle, Ferguson-Rome, and Teresi (2015), it mentioned that decreased satisfaction, staff shortages (increased workload), and minimal education and training are the causes of high rates of resident abuse in nursing homes.

Qualitative descriptive analysis conducted by Castle (2012) on resident-to-resident mistreatment in nursing homes revealed that quality of care and resident safety were significant issues. Castle (2012) stated that regulators would need to play an essential role in protecting the health and welfare of these residents.

According to Lindbloom et al. (2007), efforts to prevent nursing home mistreatment are focused on innovative training programs. For example, nursing home employees that attended a seminar learned more than employees who read written materials. Also, trained staff had more
positive attitudes toward the elderly than untrained staff (Lindbloom et al., 2007). Another randomized controlled trial conducted by Choo et al. (2015) revealed that the development of the educational program in the detection and management of elder abuse and neglect for staff in a nursing home would create awareness in the prevention of abuse and neglect.

**Deficiency Citation for Infection Control**

The nursing home resident population consists of a very frail and susceptible group of elders, many with chronic comorbidities (Castle et al., 2011). Health conditions alone can jeopardize nursing home residents’ health, but the added risk of these other quality concerns further threatens their health status. According to the data retrieved from the Online Survey, Certification, and Reporting (OSCAR) database, a total of 99,400 nursing homes classified as infection control deficiencies with an average rate of 15% are for all nursing homes (Castle et al., 2011).

**Staff Education**

According to Ellis et al. (2014), antipsychotic medications have been used by the federal government since 1987. Research shows that misuse of antipsychotic drugs continues in nursing homes with patients that have dementia. This qualitative study explored strategies implemented to assess which policies are evidence-based and to make recommendations to improve the use of best practices to reduce antipsychotic medication use. Overall, the findings revealed that staff education and mental health support were challenges related to antipsychotic medication use (Ellis et al., 2014).
Deficiency Citation for Pressure Ulcer

According to Mallot (2017), the state agency does not often cite nursing homes for inadequate pressure ulcer care or prevention. During the on-site survey, this concern identified as harmful to residents, about 25% of the time. According to Waugh & Bergquist-Beringer (2016), the presence of pressure ulcer indicates poor quality care, an increased mortality rate, and identified that elderly patients are likely to develop pressure ulcers within the first week of hospitalization. A pressure ulcer considered a significant problem for over 86,000 nursing home residents in the United States (Mallot, 2017). With immediate intervention, pressure ulcers can easily be preventable (Waugh & Bergquist-Beringer, 2016).

To summarize, the literature reviewed revealed that there was a clear association with poor quality care in cases involving pressure sores, abuse/neglect, infection control, and improper use of antipsychotic medications for patients with dementia (Cohen et al., 2014). Nevertheless, it would seem, based upon the data presented earlier regarding the level of citations in many states, that these quality care issues were not being accurately noted and flagged for concern. Given that the state surveyors perform on-site inspections of nursing homes using CMS regulations, additional training or materials was necessary to increase the efficiency and consistency in the application of the State Operation Manual, which guided in the identification of immediate jeopardy citation.

Stakeholders expressed concerns that the immediate jeopardy guidance needed to be clear in the application of the regulation when the surveyors are citing severe harm. As a result, CMS acted swiftly on the stakeholder’s feedback by releasing the 2019 new guidance for citing immediate jeopardy. The goal for the new guidance was to improve consistency in survey
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processes, citation of deficiencies, and implementation of enforcement remedies. CMS Secretary Verma’s expectation from the state agency surveyors was to identify the immediate jeopardy citation that exists and to prevent further harm to nursing home residents (Verma, 2019).

**Theoretical Frameworks**

Successful change of practice behavior involves the removal of barriers to change, provision of leadership support, and reinforcement for permanent adaptation of the new idea or practice. Lewin’s Change Theory (Appendix A) fits well with changes to health care practices. It was also useful to frame a change process for people that were easy to understand. Lewin’s Change Theory provided a framework for prompting individuals and organizations to discover and accept that a change may be necessary, consider the possible modifications, and then implement the changes in policy or behavior (Burnes, 2004; Kritsonis, 2005; Shirey, 2013).

There were three steps to the change process: unfreezing, movement, and refreezing as diagrammed in Appendix A. The first step in the process of changing behavior was to identify a need for change; the readiness for changes must also be recognized (Burnes 2004; Kritsonis, 2005). The second step of Lewin’s theory was movement. The phase when providing continuing education to the staff regarding the change takes place (Kritsonis, 2005). The third step of Lewin’s theory was refreezing. The goal in this stage was to continue to support the change process and provide encouragement to the staff as the new idea(s), or change adopted through open communication, coaching, guidance, and regular feedback. Refreezing also includes reinforcing the new practice change to promote sustainability through leadership support. (Shirey, 2013).
Lewin’s force field analysis (Appendix B) used to ensure the new standard of practice becomes sustainable and resistant to reversal (Lewin, 1947). The use of this concept achieved by strengthening the driving forces (motivations to prefer change), including improving job satisfaction and weakening the restraining forces or obstacles (motivations to evade change), such as fears brought on by change. Change and force field analysis theories applied in the 1-hour educational session given to the Nevada state surveyors. The driving force for this quality improvement project was the creation through educational intervention.

The Iowa Model of Evidenced-Based Practice (Appendix C) to promote quality care provides the methodology and framework for this project. The IOWA model was ideally suited for managing a quality-driven evidenced-based practice change. The initial steps included triggers for change and validation that the considered difference was an organizational priority (Buckwalter et al., 2017). The model highlighted decision points and feedback loops to manage the project effectively. The Iowa Model specified both knowledge and problem triggered as appropriate for considering an Evidenced-Based Practice change (Buckwalter et al. 2017). Elements of the IOWA Model were: (1) identify a problem, (2) determine a plan, (3) form a team, (4) gather evidence, (5) critique and synthesize the evidence, (6) determine the validity and appropriateness of the evidence, (7) pilot change, (8) determine if the difference is appropriate for practice, (9) implement, and (10) disseminate results (Titler, et al. 2001).

The first step in the Iowa Model was selecting a topic, which, for this project, was the inconsistencies in IJ citations in Nevada nursing homes. The first step was done in January 2019 when the primary investigator met with Western Division Survey & Certification, Assistant Regional Administrator, and Branch Manager to discuss possible areas of improvement. Next
was to form a team to address the problem. Step three was evidence retrieval. A synthesized collection of evidence-based research data supported the formation of the research question.

Levels four and five include grading the evidence and forming the EBP standard to be implemented (Appendix D). Weekly meetings with the primary investigator and the project team completed these steps. Step six was the implementation plan. This step occurred when the Internal Review Board (IRB) approved the quality improvement project. The last level was the evaluation, which scheduled when the state surveyors participated in taking the 14-item questionnaire before, immediately after, and two months after the educational intervention.

**Identifying and Defining the Variables**

The variables for this quality improvement project are described in Appendix E and include the dependent and independent variables. Also, theoretical and operational definitions included and defined.

**Methodology**

**Design**

Surveyors from the Nevada Bureau of Licensing, Survey, and Certification identified as the study sample; attendance was mandatory for all participants at the Las Vegas and Carson City District Offices since the Nevada Branch Chief mandated the participation. Although educational session attendance was necessary, participation in the project was voluntary.

**Sample**

A pre- and post-test design was applied, and 37 Nevada state agency surveyors served as participants in the quality improvement project. All data from participants were collected using a
voluntary questionnaire. The distribution of the survey took place right after the education session. Each respondent asked to assess their level of knowledge before and after the educational session.

Setting

The 1-hour, the informative course was conducted at the Nevada State agency branch office for Las Vegas and Carson City surveyors. Attendance at the educational meeting was mandatory for all CMS state-contracted surveyors. Informative session announcements were communicated more than eight weeks in advance through telephone conference and e-mail to the Nevada Branch Chief of the Bureau of Licensing, Survey and Certification.

Instrument/Measures

A knowledge, attitude, and practice (KAP Model) questionnaire adopted from a previous study done by Ritchiea et al. (2018) and Launila (2009) were used only as a guide for developing the KAP questionnaire. However, none of the questions adopted from the guide. The survey developed to evaluate baseline surveyor knowledge, confidence, and beliefs before the educational session, at different intervals (before, directly after the educational course, and two months after the project completion.

According to Polit & Beck (2012), a pilot study determines the feasibility of using the interventions to discover the preliminary trends in outcomes and the proposed data collection. The reliability and content validity completed before the final data collection through pilot testing. To determine the clarity of questions, the effectiveness of instructions, completeness of responses, required time to complete the questionnaire, and success of data collection technique; three Regional nurse consultants from the San Francisco Office asked to
comment on the applicability and appropriateness (validity) of the questionnaire. Internal consistency reliability among the questionnaire items was assessed at 0.977 and considered within the acceptable range. Cronbach’s alpha provides a measurement of how closely related a set of items are as a group; and considered to be a measure of scale reliability (Polit & Beck, 2012).

A demographic survey, constructed by the DNP student, was used to document various participant characteristics, such as age, gender, the highest level of education, and years of experience. The Statistical Package for the Social Sciences V.26 (SPSS) used for data management and analysis. Descriptive statistics assessed the baseline demographics; SPSS calculated the frequencies and percentages to allow the DNP student to help understand if possible, relationships existed between these variables.

The brief knowledge, attitude, and practice (KAP Model) questionnaire was a 14-item set of questions that measures the beliefs, education, and confidence of the surveyors. The ratings given on a 1-to-5 Likert-type response scale were 1= “Strongly Disagree,” 2= “Disagree,” 3= “Neutral,” 4= “Agree,” and 5= “Strongly Agree.” After the data collection, data were managed and analyzed by SPSS using one-way variance analysis (ANOVA) at a significant level of $\alpha = 0.05$.

**Data Collection**

Before initiating the intervention and data collection, the study proposal reviewed by the George Washington University Institutional Review Board (IRB), and it was determined to be a quality improvement study that did not require IRB approval before data collection.
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A welcome letter provided to the Nevada state agency surveyors before starting the educational session to explain the intent and purpose. A self-administered pre-test was collected to determine demographic information of the participants, such as age, gender, level of education, work experience, and experience as a surveyor. The two nurse consultants at the CMS San Francisco office served as the presenters for the education session. The intervention program consisted of one educational session lasting 60 minutes. During the informative session, teaching methods such as lecturing using PowerPoint presentations, discussion of case scenarios, question and answer, and practice documentation of the IJ template were part of the display.

The post-test questionnaire given to the participants right after the education session and then collected one hour after distribution on the same day. Finally, a follow-up using the same survey was given two months after the educational session. The obtained data were analyzed by SPSS version 26.0 using descriptive statistics and one-way variance analysis at a significant level of $\alpha = 0.05$.

Data Analysis

Descriptive statistics performed using frequencies and percentages and one-way analysis of variance (ANOVA); the Statistical Package for Social Science (SPSS) version 26.0 software used for data analysis (IBM Corp, 2019). ANOVA was used to determine whether an educational intervention would influence the knowledge, confidence, and beliefs of the surveyor’s baseline (Pre-test) versus Post-test #1 and baseline (Pre-test) versus (Post-test #2). A $P < 0.05$ was considered statistically significant.
Discussion of Results

Participant Demographic Characteristics

Table 2 displays the surveyor’s characteristics. Of the thirty-seven participants, 75.7% (n = 28) were females, 37.8% (n = 14) had both a bachelor’s degree and master’s degree, and 45.9% (n = 17) had more than twenty years of experience.

Table 2. General Characteristics of Survey Respondents (N=37)

<table>
<thead>
<tr>
<th>Participant Demographics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>24.3%</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>75.7%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-44</td>
<td>7</td>
<td>18.9%</td>
</tr>
<tr>
<td>45-59</td>
<td>23</td>
<td>62.2%</td>
</tr>
<tr>
<td>60-74</td>
<td>6</td>
<td>16.2%</td>
</tr>
<tr>
<td>&gt; = 75</td>
<td>1</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Masters</td>
<td>14</td>
<td>37.8%</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>14</td>
<td>37.8%</td>
</tr>
<tr>
<td>Associate degree</td>
<td>9</td>
<td>24.3%</td>
</tr>
<tr>
<td><strong>Previous Work Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10 Years</td>
<td>12</td>
<td>32.4%</td>
</tr>
<tr>
<td>11-20 Years</td>
<td>8</td>
<td>21.6%</td>
</tr>
<tr>
<td>&gt; 20 Years</td>
<td>17</td>
<td>45.9%</td>
</tr>
<tr>
<td><strong>Previous Surveyor experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>54.1%</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>45.9%</td>
</tr>
</tbody>
</table>

Results of Beliefs, Knowledge, and Confidence

As indicated in Tables 3 and 4 below, this quality improvement project shows that there was an overall difference in one category versus the other, as demonstrated by one-way ANOVA
(F (5,8) = 2.99, p = .081. However, the findings revealed there was a statistically significant difference between baseline and post-test (2 months after the intervention, as demonstrated by one-way ANOVA (F (7,6) = 24.12, p = .001).

Table 3. One-way analysis of variance (ANOVA): Surveyors Knowledge, Belief, and Confidence

Summary of ANOVA Pre-Test

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.069</td>
<td>5</td>
<td>.014</td>
<td>2.999</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.037</td>
<td>8</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.106</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < 0.05

Table 4. One-way analysis of variance (ANOVA): Surveyors Knowledge, Belief, and Confidence

Summary of ANOVA Post-Test

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.103</td>
<td>7</td>
<td>.015</td>
<td>24.116</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.004</td>
<td>6</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.106</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < 0.05

Table 5 below shows the overall results of baseline, pre-test, and post-test of belief, knowledge, and confidence data analysis.

Beliefs

Beliefs are problematic to transform once familiarized, according to Kurz et al. 2015. The mission for altering the surveyor’s views can be a challenge since it is not likely that one educational session will change the surveyors’ beliefs. As reflected in the assessment of beliefs from the surveyors during the self-administered questionnaire, most of the surveyors considered
EDUCATIONAL SESSION TO IMPROVE SURVEYOR KNOWLEDGE

themselves as believing that they had the basic knowledge of Appendix Q (IJ Regulations). The mean total score of the belief response was 1.03 (SD=0.164). There was no significant difference between the different time points in the belief questionnaire.

Knowledge

The knowledge section asked if surveyors could describe the three critical components of IJs and if they could give examples of the essential concepts such as seriousness, likelihood, and causation of IJ. The total mean score of the knowledge test was 1.19 (SD= 0.397). The surveyors demonstrated better performance in their answers to the post-test (2 months after intervention). The total mean score of the knowledge test was 1.25 (SD= 0.500).

Confidence

Intention and confidence, as a variable, was measured based on self-reported scores. The confidence and intention scores improved compared from baseline to two months after the intervention. The most significant measure of improvement in confidence occurred when the surveyor felt well prepared when citing a nursing home for noncompliance, rising to a level of IJ. The mean total score of the confidence test was 1.28 (SD= 0.659).

Table 5. Data Analysis of State Agency Surveyors Knowledge, Attitude, and Practice surveys (KAP Model)

Note: Rating scale: 5 = strongly agree, 3 = neutral, and 1= strongly disagree of KAP educational session.

<table>
<thead>
<tr>
<th>Statement (Variable)</th>
<th>Baseline pre-test Mean (SD)</th>
<th>Post-test (immediately after education session) Mean (SD)</th>
<th>Post-test (2 months after) Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beliefs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Q1</strong> I believe surveyors should have a working knowledge of the IJ regulation</td>
<td>1.00 (0.000)</td>
<td>1.00 (0.000)</td>
<td>1.00 (0.000)</td>
</tr>
<tr>
<td><strong>Q2</strong> I believe a working knowledge of the IJ component will help me determine IJ citation</td>
<td>1.00 (0.000)</td>
<td>1.11 (0.315)</td>
<td>1.00 (0.000)</td>
</tr>
<tr>
<td><strong>Q3</strong> I believe that the revision of Appendix Q helps better align the regulatory definition of the IJ</td>
<td>1.11 (0.315)</td>
<td>1.08 (0.277)</td>
<td>1.06 (0.232)</td>
</tr>
<tr>
<td><strong>Q4</strong> I believe basic knowledge of Appendix Q is part of my responsibility</td>
<td>1.03 (0.164)</td>
<td>1.08 (0.277)</td>
<td>1.03 (0.164)</td>
</tr>
<tr>
<td><strong>Q5</strong> I believe a revision of Appendix Q and use of the IJ template create consistency</td>
<td>1.00 (0.000)</td>
<td>1.08 (0.277)</td>
<td>1.08 (0.368)</td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Q6</strong> I can describe the three critical components of IJs</td>
<td>1.19 (0.397)</td>
<td>1.30 (0.463)</td>
<td>1.25 (0.500)</td>
</tr>
<tr>
<td><strong>Q7</strong> I have an understanding based on the case scenarios on what the SA surveyors must prove for IJ to exist</td>
<td>1.19 (0.397)</td>
<td>1.00 (0.000)</td>
<td>1.22 (0.534)</td>
</tr>
<tr>
<td><strong>Q8</strong> I can give examples of the key concepts such as seriousness, likelihood, and causation of IJ</td>
<td>1.19 (0.462)</td>
<td>1.24 (0.435)</td>
<td>1.22 (0.540)</td>
</tr>
<tr>
<td><strong>Q9</strong> I can accurately use the IJ template to document each component of IJ</td>
<td>1.16 (0.374)</td>
<td>1.27 (0.508)</td>
<td>1.25 (0.604)</td>
</tr>
<tr>
<td>Intentions/Confidence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Q10</strong> I have confidence in my ability to discuss the regulatory definition of IJ with the facility</td>
<td>1.19 (0.397)</td>
<td>1.35 (0.676)</td>
<td>1.19 (0.525)</td>
</tr>
</tbody>
</table>
EDUCATIONAL SESSION TO IMPROVE SURVEYOR KNOWLEDGE

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean (SD)</th>
<th>Mean (SD)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11 I feel comfortable consulting with the nursing home staff and leadership if they have questions about the critical components of IJ</td>
<td>1.19(0.397)</td>
<td>1.27 (0.508)</td>
<td>1.28(0.615)</td>
</tr>
<tr>
<td>Q12 I have a resource for Appendix Q questions</td>
<td>1.19(0.397)</td>
<td>1.24 (0.435)</td>
<td>1.19(0.525)</td>
</tr>
<tr>
<td>Q13 I have the skills to discuss immediate jeopardy regulation with the nursing home staff</td>
<td>1.19(0.397)</td>
<td>1.30 (0.571)</td>
<td>1.22 (0.591)</td>
</tr>
<tr>
<td>Q14 I feel well prepared when I need to cite a nursing home for noncompliance rising to a level of IJ</td>
<td>1.27(0.652)</td>
<td>1.27(0.508)</td>
<td>1.28(0.659)</td>
</tr>
</tbody>
</table>

Study Limitations

While the identification of IJs has traditionally been somewhat subjective, there is a recognition that the percent of IJ identified annual citations at the national averages 1.6%. Given that IJs are an infrequent occurrence, it is difficult to determine whether enhanced training indeed increased the surveyor capabilities to identify an IJ. To mitigate this limitation, examining surveyor competence longitudinally where there were opportunities to identify IJs would be valuable (i.e., measure IJs across several years to see if an effective educational intervention can improve IJ citations).

Implications/Recommendations for Practice, Policy, and Research

The findings from the study demonstrated that an educational intervention using a case-based approach was effective in improving the state agency surveyors’ belief, knowledge, and confidence in the detection and identification of immediate jeopardy findings in this study.
EDUCATIONAL SESSION TO IMPROVE SURVEYOR KNOWLEDGE

Steps should be taken by the Division of Survey and Certification (DSC) leadership to recognize that case-based learning would sustain the confidence and knowledge in the citation of immediate jeopardy findings in nursing homes. Additionally, one factor that will help surveyors accurately identify the IJ situation is for DSC leadership to assign staff dedicated to answering questions from the SSA in the interpretation of the new IJ regulations. The DSC staff will ensure that surveyors are receiving guidance that is clear and consistent in identifying severe quality concerns.

Discussion

As noted during the review of the literature, this was the first quality improvement project describing the beliefs, knowledge, and confidence of state surveyors to identify an IJ. The literature review does not indicate any comprehensive study for IJ regulations understanding targeting state surveyors’ practices in the United States. It is necessary first to establish surveyors’ baseline knowledge, beliefs, and confidence so that relevant educational programs initiated. Assessing the surveyor’s expertise is also vital because experience plays a causal role in attitude or behavioral consistency (Launiala, A. (2009).

Conclusion

The objective of this quality improvement project was to determine if a brief educational session about immediate jeopardy regulation could improve the knowledge of state surveyors regarding deficiency citation of immediate jeopardy findings in a nursing home. This project was well-received and embraced by the CMS leadership highlighting the need for continued education services by the Bureau of Licensing, Survey, and Certification staff.
This quality improvement project improved the knowledge and confidence of the Nevada state agency surveyors regarding the detection and identification of immediate jeopardy findings in a nursing home. This study also supported the student and CMS staff to appreciate the value in training, using case studies and templates to increase the efficiency and consistency in the application of the CMS State Operation Manual, which guides surveyors in identifying the need for immediate jeopardy citations. The development of the educational program can provide the state survey agency with clear and consistent guidance when assessing noncompliance that constitutes Immediate Jeopardy situations. The learned knowledge will help protect nursing home residents by ensuring adherence to CMS health and safety standards.
References


Centers for Medicare and Medicaid Services (2019). Quality, Safety, and Oversight Group: Immediate Jeopardy Analysis by Division of Nursing Homes.

EDUCATIONAL SESSION TO IMPROVE SURVEYOR KNOWLEDGE


Kwong, E.W., Hung, S., & Woo, K. (2016). Improvement of pressure ulcer prevention care in private for-profit residential care homes: an action research study, BMC *Geriatrics* 16, 192

https://doi.org/10.1186/s12877-016-0361-8


Appendix A

Lewin’s Three-Step Model for Planned Change

Unfreezing
Eliminating Barriers
- Provide information
- Address concerns

Change
Encourage change
- Coaching
- Regular Feedback
- Open Communication

Refreezing
Reinforcing change
- Leadership support
- Onsite practice
Appendix B

KURT LEWIN’s FORCE FIELD ANALYSIS

**DRIVING FORCES**


- Strengthen driving force
- Motivations for change
- Improve job satisfaction
- Work Stress Reduction

**RESTRAINING FORCES**


- Weaken restraining forces
- Motivations to evade change
- Fears brought on by change
- Resistant to learning

Immediate Jeopardy Training: to Improve Surveyor Knowledge
Appendix C

The Iowa Model of Evidence-Based Practice to Promote Quality Care

Identify Triggering Issues / Opportunities
- Clinical or patient identified issue
- Organization, state, or national initiative
- Data / new evidence
- Accrediting agency requirements / regulations
- Philosophy of care

State the Question or Purpose

Is this topic a priority?
- No
- Yes

Form a Team

Assemble, Appraise and Synthesize Body of Evidence
- Conduct systematic search
- Weigh quality, quantity, consistency, and risk

Is there sufficient evidence?
- No
- Yes

Consider another issue / opportunity

Design and Pilot the Practice Change
- Engage patients and verify preferences
- Consider resources, constraints, and approval
- Develop localized protocol
- Create an evaluation plan
- Collect baseline data
- Develop an Implementation plan
- Prepare clinicians and materials
- Promote adoption
- Collect and report post-pilot data

Consider alternatives

Redesign

Conduct research

Is change appropriate for adoption in practice?
- No
- Yes

Integrate and Sustain the Practice Change
- Identify and engage key personnel
- Hardware change into system
- Monitor key indicators through quality improvement
- Reinforce as needed

Disseminate Results

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## Appendix D
### Step by Step Implementation of Education Session Within the IOWA Model

| Trigger | • Recent changes that triggered this change:  
|         | • New release of immediate jeopardy regulations and data released by CMS  
|         | Central office |
| Priority for organization? | Yes |
| Stated agency goal | • Improve state agency oversight and be able to consistently identify serious quality concerns. |
| Form a team | • Data Analysis, Monitoring and Accountability (DAMA) team - Region 9: Branch managers, nurse consultants, health insurance specialists  
|         | • Key leaders of state agency |
| Assemble Research | • SCOPUS review on quality of care in nursing homes, pressure ulcer prevention in nursing home, Abuse & neglect, reducing fall rates, antipsychotic medications  
|         | • Determine state agency failure to enforce minimumm standards in nursing home |
| Critique and synthesize research for practice | • Is there sufficient research? Yes  
|         | • Develop educational program |
| Pilot change & Evaluate | • Educate staff on Immediate Jeopardy-new regulation  
|         | • Provide pre and post test questionnaire |
| Follow up and fully implement | • Follow up in two months post training  
|         | • Modify and modify education program as needed |

This step by step model adapted from the IOWA Model of Evidence Practice Promoting Quality Care with permission from the University of Iowa Hospitals and Clinics, copyright 2015.
Appendix E

Table 6A. Variable Table

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAP questionnaires</td>
<td>age, gender, education level, previous work experience, and previous surveyor work experience</td>
<td>ANOVA</td>
</tr>
</tbody>
</table>

Table 6B. Definition of Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Theoretical Definition</th>
<th>Operational Definition</th>
<th>Type of Data (Ordinal or Nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Demographic</td>
<td>Chronological age of surveyors</td>
<td>1= 30-44 2= 45-59 3= 60-74 4= &gt; = 75</td>
<td>Nominal</td>
</tr>
<tr>
<td>Gender</td>
<td>Demographic</td>
<td>Gender of surveyors</td>
<td>1= Male 2= Female</td>
<td>Nominal</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Demographic</td>
<td>The educational level of surveyors</td>
<td>1= Doctoral 2= Masters 3= Bachelors 4= Associate Degree</td>
<td>Nominal</td>
</tr>
<tr>
<td>Previous work experience</td>
<td>Demographic</td>
<td>Surveyor’s previous work experience</td>
<td>1= 1-10 Years 2= 11-20 Years 3= &gt; 20 Years</td>
<td>Nominal</td>
</tr>
<tr>
<td>Previous Surveyor experience</td>
<td>Demographic</td>
<td>Previous experience as a surveyor</td>
<td>1=Yes 2=No</td>
<td>Nominal</td>
</tr>
</tbody>
</table>