

## **ISAHP2018 PAPER SUMMARY**

### **Ethical Decision Making in Action: Evaluating Hospital Care Attendance Approaches**

#### **Abstract**

An average of 340,000 hospitalized patients get injured due to falls every year. Providing the best possible care attendance (CA) to prevent these incidents is very important. We posit and demonstrate here that beyond medical and financial considerations, CA proper selection and evaluation is an ethical decision which requires considering the needs as well as input from all the affected parties (hospitals, nurses and patients). Unfortunately, until now CA discussion has involved mainly isolated perspectives and rarely that of the patient. Using a stakeholder theoretical approach, taken from the ethical decision making literature, and the Analytic Hierarchy Process -which allows the integration of multiple stakeholder perspectives and the inclusion of intangible variables (such as patient's sense of value)- we develop a CA evaluation framework to allow the prioritization and allocation of resources to the different CA approaches identified in the extant literature: care attendant (CA), continuous video monitoring (CVM), normal rounding (NR) and family visitor sitters (FVS).

#### **1. Introduction**

Patient safety is a priority in the acute care hospital setting for nurses today. Patients who are at risk for adverse outcomes including falls, injury to self and others may need increased supervision. The Agency for Healthcare Research and Quality reports between 700,000 and 1,000,000 people fall in the hospital each year. The number of falls that occur each year is equivalent to the population of Dallas, Texas (U.S. Population City and Town Population, n.d.).

The Joint Commission reports 30% to 50% of falls resulting in injury. More than one third of in hospital falls result in injury, including serious injuries such as fracture and head trauma. In addition to this, patients may face financial calamity. The average cost for a fall with injury is \$14,000. The Center for Disease Control reports, "medical costs of fall injuries for U.S. patients ages 65 or older are \$34 billion annually, hospital costs account for only two-thirds of the total cost of fall injuries (Falls, n.d.)."

While there is no question of the importance of addressing the best way to prevent these falls from a medical and financial point of view for both the patients and hospitals, we posit that the evaluation of a care attendance approach is also an ethical decision. In this study we will first show that care attendance (CA) is a healthcare ethical issue and second, we will show an ethical decision-making approach rooted in stakeholder theory (Freeman 1984) and which uses the Analytic Hierarchy Process (AHP) as the decision-making methodology.

## **2. Literature Review**

Our literature review comprises two domains: first, the literature discussion to support CA evaluation as an ethical decision and second, the literature discussion to identify current CA approaches, their characteristics and the elaboration of criteria to evaluate them from different, more specifically hospital, nurse and patient's perspectives.

### **2.1. Care Attendance Evaluation as an Ethical Decision**

Frameworks for ethical decision making are helpful in examining a clinical situation or action to determine if the situation involves ethical issues. Curtin's 6-step model of ethical decision making recommends the following steps: Perception of the Problem, Identification of Ethical Components, Clarification of Persons Involved, Exploration of Options, Application of Ethical Theory, and Resolution/Evaluation (Curtin, 1979; Stuart and Sundeen, 1987).

Perception of the Problem.

This step is aimed at identifying if an ethical dilemma exists and the context of the dilemma. Our review of CA literature shows the presence of a moral conflict: hospital management would prefer a solution that reduces cost of CA's (Jeffers et al., 2013); nurses –are more highly concerned with their patients' safety (Neville, DiBona, & Mahler, 2016) and patients assess their CA preference based on personal values and perceptions (e.g. a patient may find more value in having a family member providing CA than by a trained care attendant) (Tzeng & Yin, 2007).

Identification of the Ethical Components.

The second step in ethical analysis is to identify ethical components: What is the underlying issue/problem? Who is affected by this dilemma?

The three conflicting perspectives –hospital, nurse and patient- to assess CA constitute the base of our perception of CA selection as an ethical decision. Our review of the literature shows that most of the CA discussion has been done from the hospital's perspective (Babine et al., 2018; Torkelson & Dobal, 1999; Laws & Crawford, 2013; Solimine et al., 2018), few from the nurse perspective (Neville, DiBona, & Mahler, 2016) and rarely if ever from the patient's perspective (Tzeng & Yin, 2007).

Clarification of the People Involved.

In the third step in the process of ethical analysis, the relevant questions to be asked at this stage are: What are the rights of people/person involved? Who should be involved in decision making? For whom is the decision being made?

The three parties previously identified: hospitals, nurses and patients have all clearly defined rights to participate in the CA decisions. Hospitals are responsible for providing

quality healthcare while maintaining the financial viability of their services. Nurses are professionally committed to the well-being of the patients under their care. Finally, patients will be directly affected by the outcome of the CA selection. Therefore, they should all participate in CA evaluation decisions. Furthermore, CA evaluations should be made to address all three parties needs and not only those of the patients.

#### Exploration of the Options.

The fourth step of ethical analysis is the exploration of the options. Relevant questions to be asked at this stage include: What alternatives exist as well as the purpose and potential consequences of each alternative.

Based on the extant literature, the following CA options have been identified: care attendant (CA), continuous video monitoring (CVM), normal rounding (NR) and family/visitor/friend (FVS). This study will exam the purpose and potential consequences of each of these alternatives and will provide and evaluation framework for this purpose.

#### Application of Ethical Theories.

Application of ethical theories is the fifth step of ethical analysis. The application of ethical theories in situational analysis strengthens the final decision. A relevant question at this stage is, which ethical theoretical framework should we use?

Our previous discussion, and in particular the need to address the needs of the different parties (hospitals, nurses and patients) suggest the application of stakeholder theory which has become relevant for social responsibility and ethical management in general (Harrison and Freeman, 1999; Freeman et al., 2010). A stakeholder in an organization denotes “any group or individual who can affect the achievement or is affected by the achievement of the organization’s objectives” (Thompson 1967; Freeman 1984). The implications of this theory is that it is a fundamental ethical principle that those who will be affected by a decision be informed and preferably participate in the decision.

#### Resolution into Action.

The sixth and final step is the requirement to decide on a resolution—resolution into action. Relevant questions to be addressed here are the following: What is the goal of one’s decision? How can we ensure the decision is the best for all concerned? How can the resulting choice be implemented? How can the resulting ethical choice be evaluated?

The development of this stage is the purpose of our paper: Our decision goal is to evaluate the existing CA approaches in terms of criteria developed from the extant literature and expert opinion, including criteria from all the parties involved to ensure it is the best for hospitals, nurses and patients. Suggestions about how to implement the choice(s) and its subsequent evaluation will be also included.

## **2.2. Care attendance in the Evidence-Based Medical Literature**

Based on the medical evidence-based extant literature (see references) we have identified criteria and alternatives for our B/C care attendance evaluation model. Benefit criteria include safety and customer value including sub-criteria patient perceived value and hospital perceived value. Cost criteria include fixed costs (which comprise two sub-criteria: acquisition and setting up costs) and finally variable costs which is constituted by the operational costs. Alternatives include (nurse-dedicated) care attendants, continuous video monitoring, normal rounding, and family visitor sitters (Solimine et al 2018; Sand-Jecklin, Johnson et al 2016; Kessler, Claude-Gutekunst et al 2012; Tzeng and Yin 2007).

## **3. Objective**

The purpose of the current study is to develop an ethical-oriented CA evaluation framework by taking into consideration the conflicting needs and perspectives of hospitals, nurses and patients.

## **4. Design/Methodology**

The present study evaluates, using the Analytic Hierarchy Process (AHP) methodology (Saaty, 2008), four different care attendant approaches: care attendant (CA), continuous video monitoring (CVM), normal rounding (NR) and family/visitor/friend (FVS). The evaluation criteria have been obtained from a review of the evidence-based medical literature and expert opinion on this topic, and their importance assessed from the hospital, patients and nursing point of view. More specifically, we will follow an AHP Benefit/Cost (B/C) analysis (Mu and Pereyra-Rojas, 2018); however, rather than using a traditional financial B/C approach, we will take advantage of the AHP methodology to model intangible criteria such as “perceived value” as well as the inclusion of benefit criteria corresponding to the different stakeholders such as hospital’s and patient’s perceived value and nurse’s concern (safety) as seen in Figure 1. The cost criteria is more attuned with objective financial considerations as seen in Figure 2. The criteria elements have been

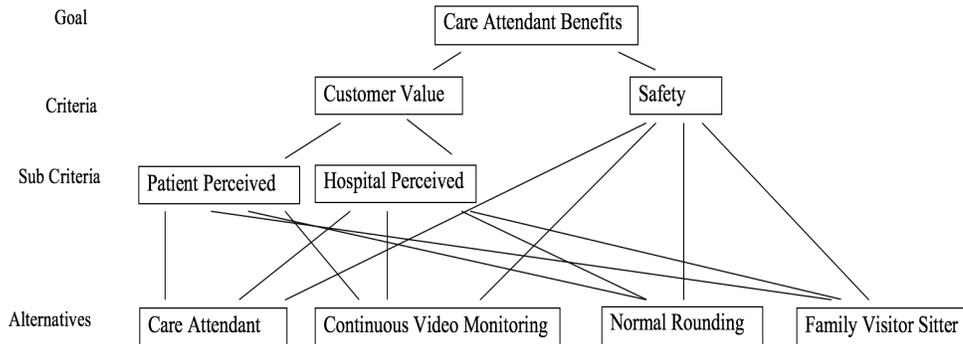


Figure 1 – Benefits Model

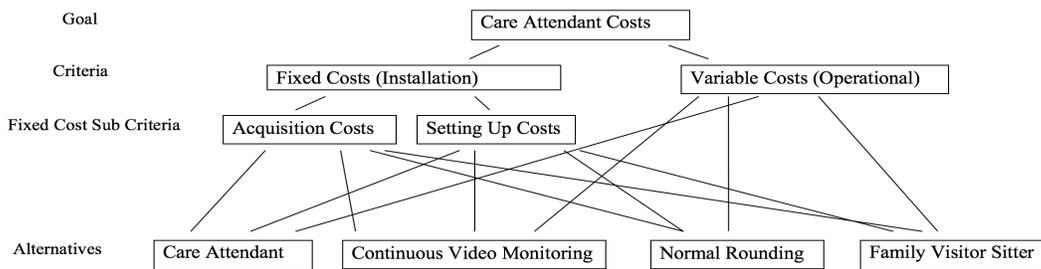


Figure 2 – Cost Model

## 5. Preliminary Analysis and Results

Our findings, based on Table 1 that shows AHP B/C preliminary results, suggest that hospitals should invest on care attendance approaches allocating their care attendance resources as follows: FVS (50%), CA (25%), CMV (14%) and NR (11%). In addition, some suggestions about how to implement, improve and measure the success of these CA approaches will be provided.

**Table 4- Benefit Cost Ratio Analysis**

<b>Alternatives</b>	<b>Benefit</b>	<b>Cost</b>	<b>Benefit/Cost</b>	<b>Normal</b>
A1 Care Attendant (CA)	0.994	0.388	2.56185567	2 <b>0.247157048</b>
A2 Continuous Video Monitoring (CVM)	0.25	0.168	1.488095238	3 0.143565163
A3 Normal Rounding (NR)	0.083	0.07	1.185714286	4 0.114392722
A4 Family Visitor Sitter (FVS)	0.554	0.108	5.12962963	1 <b>0.494885068</b>
			10.36529482	1

## 6. Limitations and Future Research.

Expert representation for each stakeholder perspective may not be enough. AHP cannot fully take away the subjectivity of the participants and for this reason extending the number of qualified expert judgments from all stakeholder groups may be convenient. A greater number of stakeholders could have helped for each perspective to help streamline best suitable format. Another area of exploration is to develop different decision hierarchies for each stakeholder perspective. Still, this study helps learn essential factors needed in adopting CA approaches. This evaluation framework can serve as a reference and best practice reference for decision makers in the acute care setting.

## 7. Contribution of this study

The most important and unique characteristics of the present study is that first, it addresses the ethical dilemma of cost effectiveness (hospital view) vs safety and value (patients and nurses') and similar conflicting stakeholders' criteria by incorporating all these different perspectives. Second, rather than using a traditional financial B/C analysis, we have used a methodology, AHP, which allows the inclusion of intangible considerations such as "patient's perceived value" (personal preference) . Third, the prioritization of the different CA approaches allows the allocation of hospital resources according to these preferences and Finally, we provide suggestions for CA choice implementation and follow up evaluation.

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<sup>1</sup> This is a short selection of the extensive literature reviewed to date.

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