

UTILIZING THE OMAHA SYSTEM TO MEASURE THE EFFECT OF PROVIDING ROSEN METHOD  
EXERCISE SESSIONS TO OLDER ADULTS AT AN INDEPENDENT LIVING COMPLEX

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**Purpose:**

This study measures the effect of adult residents, fifty-five years and older, participating in bi-weekly gentle Rosen Method exercise sessions at an independent living facility in Northern California over a ten-week period.

**Design and Methods:**

The Omaha System was utilized to measure the Knowledge, Behavior, and Status, of adult residents, fifty-five years of age and older, who participated in bi-weekly, one-hour Rosen Method exercise classes.

**Results:**

Residents expressed an increase in well being after participating in the Rosen Method exercise classes. Residents' Knowledge on the importance of movement increased, their Behaviors indicated an improvement in activity levels and social interactions, and their overall self-assessed health Status and energy improved as indicated by the Omaha System measures.

**Implications:**

Rosen Method Exercise sessions offer a beneficial, gentle, health-promoting and sustaining activity for adults motivated to increase movement in their lives.

# EFFECTIVENESS OF DATA VISUALIZATION AS A DATA-DRIVEN RESEARCH METHOD

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## Introduction:

This study utilized data visualization to explore large datasets, generate hypotheses, and discover potentially significant factors. The study used nursing intervention data for female patients with no or low income, coded using the Omaha System (57 patients, 5 public health nurses (PHNs), and 8479 interventions). The study attempted to discern distinct PHN intervention patterns as visualized by stream graphs, and analyzed how these patterns are associated with patient outcomes using statistical methods.

## Methods:

Two types of stream graphs were created using the visualization toolkit d3 and JavaScript. The first type displayed interventions by category by nurse, where hue, saturation, and value encoded Omaha System category, problem, and target, respectively. The second type visualized interventions by problem by patient, where hue, saturation, and value encoded problem, target, and category, respectively. All graphs were reviewed perceptually to discover different or similar factors that are responsible for a pattern shape. The review proposed a hypothesis and statistical methods were used to formally test it.

## Results:

The 2 groups of PHNs were defined in terms of the ratio of case management to other intervention categories. Statistically, groups were associated with the ratio of case management ( $P < .0001$ ) and did not significantly differ at baseline (MRI score before intervention ( $P=0.31$ ), total problem count ( $P=0.11$ ), care period ( $P=0.12$ )). Regarding outcome, the groups did not significantly differ on MRI score after intervention ( $P=0.57$ ). Most graphs revealed that Income and Caretaking/parenting problems persisted over time regardless of case management in frequency.

## Conclusions:

Data visualization contributes to the rapid detection and comprehensive understanding of patterns in large datasets.

## MEASURING PUBLIC HEALTH MATERNITY SUPPORT SERVICES OUTCOMES

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Public health nurses and behavioral health specialists providing services to pregnant and postpartum women need to be able to generate valid and reliable data in order to quantify practice, communicate outcomes to diverse audiences, and provide the highest quality care. The use of standardized documentation in an electronic health record that uses a common language is essential to accomplish this. The Kitsap Public Health District is using the Omaha System and Nightingale Notes software to generate valid and reliable data that are also meaningful to describe our clients, the interventions provided, and the outcomes of care. A detailed analysis of client data for pregnant and postpartum women who received maternity support services ending in 2011 replicates key findings from our 2010 report. For example, clients had the same top three actual and potential problems and again experienced statistically significant improvements in Knowledge, Behavior and Status ratings for all actual problems combined and many of the same actual problems. Additionally, data from the 2010 report helped to initiate discussions about consistency in data collection and make program improvements, such as increasing the proportion of women who are seen during both pregnancy and postpartum. Using the Omaha System language within an electronic health record allows for selection of measurable outcomes and provides aggregated data needed for program improvement and practice changes. Positive program outcomes are also essential to demonstrate the value of services in the face of diminishing local, state, and federal funding. Clearly, all public health professionals working with pregnant and parenting families need to generate measurable outcome data that are essential for improving practice, accountability, and financial stability. The Omaha System and electronic health records give us the tools to do this.

## MCKESSON HOMECARE AND HOSPICE-CLINICAL MANAGEMENT SOLUTION

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McKesson is preparing to launch our next generation clinical solution (General Availability planned for March 30, 2013), specifically, McKesson Homecare and Hospice's - Clinical Management. We are committed to delivering an intelligent, collaborative, and efficient solution to the homecare industry and will accomplish this by delivering a solution that supports the clinicians' mental model, places the patient at the center of care and supports regulatory compliance. McKesson Homecare and Hospice's Clinical Management solution incorporates a strong clinical decision support system developed using a proprietary rules engine. The system is designed to improve accuracy and consistency in clinical documentation by delivering best- and evidence-based practice to the clinician at the point of care. The Clinical Management solution leverages the Omaha System, a standard clinical terminology, to support an interoperable electronic health record and improve collaboration through a coordinated, interdisciplinary care plan. The solution supports the clinician's decision-making throughout the complete care cycle, from admission to discharge, and objectively measures and reports progress toward the established patient-centered goals.

The poster presentation will describe the Omaha System as the foundation of a revolutionary new solution and the key to supporting interoperability of the patient care plan and progress reporting.