

Measuring Preference Congruence for Recreational Activities: A First Look at a Potential Quality Indicator

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Introduction

Therapeutic recreation plays a valuable role in contributing to the overall emotional and physical health of the resident by providing opportunities to exercise the mind and body, develop healthy relationships, and engage in meaningful activities.¹ CMS has increasingly embraced person-centered care, encouraging providers to enhance their ability to demonstrate that their care addresses the needs and preferences of frail elders.² In October 2010, the federally mandated Minimum Data Set (MDS) 3.0 included a newly redesigned 9 item assessment tool to assess resident preferred recreational activities.^{3,4} Though consensus continues to build in the importance of assessing and delivering preference-based care for recreational activities in long-term care, there remains a significant gap in being able to measure and bench-mark this type of care delivery for quality improvement purposes in long term care facilities.

A new data driven quality indicator focused on preference congruent recreational activity care could have multiple uses in a long-term care facility, including assisting with individual care planning, identifying program and service opportunities, highlighting strengths and assets of an organization and gauging how well an organization is doing overall in honoring resident preferences. The current study examined the development of a new quality indicator that would allow providers to track their progress in the delivery of preference based therapeutic activities. The "Preferred Activity Congruence" Quality Indicator was constructed by comparing resident stated preferences for recreational activities with the resident's record of attendance at these preferred activities. The resulting indicator takes the form of percent preferred activity congruence for an individual, household of individuals, or total facility. This poster summarizes efforts to develop a new Preferred Activity Congruence (PAC) quality indicator in a single large 5 star long term care facility. Data is presented that demonstrate which recreational preferences are most important to residents, PAC levels for the facility overall, and the relationship between PAC and resident descriptive characteristics.

References

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Methods

Table 1: Descriptive Table for nursing home residents (n=203) and relationship to Preferred Activity Congruence

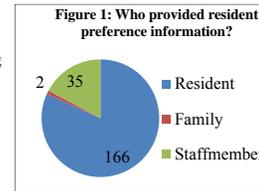
Variable	High Score	Min	Max	Mean	SD	Pearson's
Sensory Abilities						
Hearing	More impaired	0	3	.90	.864	
Vision	More impaired	0	4	.60	1.007	0.159*
Language Abilities						
Ability to express ideas/wants	More impaired	0	3	.76	.836	0.186**
Ability to understand others	More impaired	0	3	.89	.737	0.214**
BIMS Score						
BIMS Score	More capable	1	15	9.50	4.309	-0.274**
Inattention	More impaired	0	2	.48	.779	-.138*
Disorganized thinking	More impaired	0	2	.47	.779	-.155*
Functional Abilities						
Bed Mobility	More impaired	0	3	2.40	.957	
Transfer	More impaired	0	4	2.39	.996	-.145*
Walk in room	More impaired	0	3	2.09	.953	-.146*
Walk in corridor	More impaired	0	3	2.12	1.076	
Locomotion on unit	More impaired	0	3	1.85	.821	
Locomotion off unit	More impaired	0	3	1.71	.949	
Dressing	More impaired	0	3	2.03	.571	
Eating	More impaired	0	2	1.34	.524	.217**
Toilet Use	More impaired	0	3	2.26	.672	
Personal Hygiene	More impaired	0	3	1.74	.859	-.167*
Bathing	More impaired	0	3	2.18	.489	-.167*

Blank cells indicate non-significance. * Correlation significant at p<.05 (two-tailed). ** Correlation significant at p<.01 (two-tailed).

- A total of 203 nursing home residents living in a skilled nursing facility served as participants in this study. The sample was 83.3% female, the majority were widowed (70.4%) and the mean age was 87.78 (sd=8.65).
- Most recent MDS 3.0 information between January 2011 and February 2012) was used to obtain descriptive information including sensory, language, cognitive, and functional abilities.

Methods (continued)

- Recreational preferences (MDS 3.0 Section F) were collected as a part of the usual MDS assessment process. In this sample, 81.8% of the preference information was gathered via interview with the resident (See figure 1). Preferences are assessed using the stem, "While you are at this facility, how important is it to you to...[insert specific preference]". The Likert scale ranges from 1- "Very Important" to 4- "Not Important at All". Only those items rated as "Very Important" by the respondent were used to calculate the PAC quality indicator.



- Staff identified the type of recreation activities that were most closely matched to the MDS 3.0 Section F recreation preferences (See Table 2 for examples). As a part of their usual care practices, Therapeutic Recreation staff recorded resident engagement in recreational activities on a daily basis.

Table 2: MDS Section F Preferences

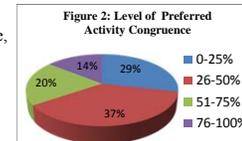
Responses to the MDS 3.0 Section F Recreational Preferences: "While you are at this facility, how important is it to you to..."	Types of recreational activities linked to resident preferences	N of residents who rated preference as "Very Important" ^{a,b} (%)
...listen to music you like?	Listening to Music, Glee Club, Sing-Along, Piano	141 (69.5%)
...go outside and get fresh air when weather is good?	Going Outdoors	126 (62.1%)
...keep up with the news?	Current Events	123 (60.6%)
...have books, newspapers and magazines to read?	Reading, Short stories	112 (55.2%)
...do things with groups of people?	Multi-generational, Socials, Parties	84 (41.4%)
...participate in religious services or practices?	Religious Services, Meditation, Memorials	77 (37.9%)
...be around animals such as pets?	Pets and Paws	6 (2.2%)

^a 1-Very Important; 2-Somewhat Important; 3-Not very important; 4-Not important at all; 5-Important, but can't do; 9-No response or non-response.
^b "Important, but Can't Do" was rarely endorsed. The range of % endorsement was 0-2.5% across the 9 items.

- An activity was considered to be congruent if the resident participated in the activity at least once in the course of a month and the resident rated it as "Very Important". The total number of activities attended three months following the month of annual MDS was extracted from the electronic medical record. For example, if a resident's admission or annual MDS was in month of August, 2011, the total activities attended by month were extracted from September-December, 2011.
- The new QI indicator- "% Preferred Activity Congruence (%PAC)" - was calculated by identifying the percentage of activities attended according to the activity attendance records that were congruent with the resident most important preferences as indicated by the 7 MDS 3.0 Section F "Preference for Activities" items.

Results

- Most Important Preferences** -All recreational preferences were endorsed as "Very Important" by a subset of residents. The preference most frequently endorsed as "Very Important" was to "listen to music you like" (69.5%). The preference least frequently endorsed was to "be around animals such as pets" (2.2%). (See Table 2)
- Preferred Activity Congruence (PAC)** - For this sample, the overall level of %PAC across all 7 recreational activities was 44.4% (median); range was 0%-100%. Approximately 66% of residents had a %PAC indicator below 50%, while 34% were above 50% congruence. (See Figure 2).
- Relationship between %PAC and resident descriptive characteristics** -Correlational analyses were conducted to examine relationships between a resident's %PAC indicator and various descriptive characteristics. Percent PAC was significantly related to 11 abilities including vision, language, cognition and function (see last column of Table 1). The direction of the relationship was consistent in each case: those who were more impaired had greater congruence scores.
- When subjected to regression analyses, the overall ANOVA was significant in predicting %PAC (F (10, 192)=2.273, p<.015). However, only cognitive functioning as assessed by the Total BIMS Score retained unique predictability (β =.219, t =2.21, p<.028).



Discussion

- This new quality indicator appears to be a promising way to measure person-centered care, at least as it is defined by engaging in preferred recreational activities. The full range of the scale was utilized in this sample of nursing home residents. It is far too early to determine what level of congruence would be optimal for benchmarking facilities. As individuals, few among us have all our preferences met on a daily basis; therefore it seems reasonable to suggest that approximately 50% congruence would be a minimal goal for facilities to attain.
- The finding that preferred activity congruence was higher for those with more cognitive impairment is intriguing and raises more questions than answers.
 - Does recreation staff focus more on preferred care delivery to those more impaired individuals?
 - Could the lack of congruence for more capable individuals simply reflect measurement error in how resident self-directed activities are recorded?

Future Directions

Perhaps the most pressing questions raised in this pilot study were around the issue of how "congruence" should be defined as a measurement construct.

- We chose to only look at preferences that were rated as "Very Important" by residents. Data from another study suggests that residents show considerable variability in switching between "Somewhat" and "Very" important responses over time. Thus, an argument could be made that the indicator should include both levels of importance responses.
- How many times does a resident have to engage in a preferred activity to be considered "congruent"? This study chose once a month as the criterion. An argument could clearly be made that frequency of engagement should also be personalized by the resident, i.e. one person may want to go outside every day, while another would be fine with once a month.
- While more than 82% of residents provided answers to their preferences via self-report, we have no way of ascertaining whether the remaining proxy responses by family and staff were an accurate reflection of the resident's true preferences.
- The 7 MDS Section F items reflect a very small portion of potential recreational preferences. By assessing such a small number of resident recreational preferences the indicator may miss the true level of congruence being attained by a facilities recreational program.

Conclusions

This pilot study presents initial efforts to define and measure one aspect of person-centered care- preferred recreational activities. The indicator utilizes existing data in an innovative way to provide feedback to facility staff about their efforts to honor resident preferences. It also provides a potential way to benchmark efforts in this regard across facilities.

- Much work remains to be done. The research team is currently working to continue to build the viability of this indicator. We are taking the following steps:
 - Identifying and ameliorating sources of measurement error when recording type and frequency of activity attendance
 - Assessing alternative definitions of "congruence" using community based participatory research methods involving residents and staff
 - Expanding the pool of recreational preferences to the 28 items reflected in the Preferences for Everyday Living Inventory⁶
 - Engaging in research to directly assess the reliability of residents preferences over time
 - Developing a toolkit designed to assist staff in using preference congruence information to enhance individual care planning, recreational program delivery and use of the quality indicator on a household and/or facility level