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## Are clinician's ever biased in their judgments of the capacity of older adult's to make medical decisions?

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### Abstract

Capacity assessment is a growing area of practice in geriatrics. In this pilot study we illustrate the potential relationship between clinician variables and capacity ratings. Twelve older adults with mild dementia or schizophrenia were rated by six clinicians from diverse disciplinary backgrounds. Capacity ratings were associated with clinician values regarding patient involvement in medical decisions, clinician-patient mismatches on such values, and emotional reactions to patients. Expanding our understanding of the impact of clinician variables on capacity ratings may enhance the reliability and validity of capacity assessments and help to promote autonomy when appropriate.

### Introduction

In this paper we discuss an important emerging ethical issue in geriatric care – capacity assessment of older adults – here focusing on potential bias in clinical judgments of capacity. The practice of assessing decisional capacity has advanced rapidly in the last few years in the context of growing research and multidisciplinary recommendations (American Bar Association & American Psychological Association, 2005, 2006). Medical decision-making capacity has received special attention due to the high frequency and possible life and death consequences of such cases. The presence of neuropsychiatric illness such as dementia or schizophrenia is a common trigger for concerns about decisional ability. The need for assessment is expected to increase exponentially with a predicted doubling of the older adult population in the next 25 years (U.S. Bureau of the Census, 2000), and a predicted increase in Alzheimer's disease – the most common cause of dementia – from 5 million older Americans to 7.7 million by 2030 (Hebert et al., 2003). At the crux of a capacity evaluation is the issue of autonomy versus protection. As such, capacity assessment should be maximally reliable, valid, and free from bias.

However, inter-rater reliability of capacity ratings can be unacceptably low (Kitamura and Kitamura, 2000; Marson et al., 1997). Fortunately, reliability may improve when clinicians focus on specific legal standards for consent capacity – understanding, appreciation, reasoning, and expressing a choice (Marson et al., 2000).. In a vignette-based study assessing reliability of capacity determinations in mild dementia by 481 clinicians, such uniform standards were not used (Volicer and Ganzini, 2003).

In addition to issues with uniform standards, other factors may impact the reliability of clinician ratings. Clinicians assessing decisional capacity tend to focus strongly on patient cognitive abilities (Earnst, Marson, and Harrell, 2000; Schmand et al., 1999). While this focus is understandable given the relationship between cognitive functioning and decisional abilities

(Gurrera et al., 2006; Moye et al., 2006), many patients do not make decisions in a strictly rational manner, so an over-reliance on cognitive factors may overlook important factors leading to capable medical decision making (Charland, 1998; Kluge, 2005). An older adult's medical decisions may be influenced by emotional, intuitive, and quality-of-life factors that are difficult to assess. Clinicians may evaluate a patient's quality of life differently, and often as less desirable, than a patient (Starr, Pearlman, and Uhlmann, 1986; Uhlmann and Pearlman, 1991). Physician proxies are poor at predicting patient's treatment preferences (Suhl et al., 1994).

Just as patient's medical decisions may be influenced by non-rational processes, so too may clinicians' decisions about the capacity of patients. Although this has not been studied in the domain of decisional capacity, clinical judgment can be biased by numerous factors including race, gender, age, and affective responses (Garb, 1998). To date, almost no research exists to examine how factors outside of the patient's cognitive functioning may affect clinician capacity ratings. To develop a framework for future investigation, we conducted a pilot study to examine these issues.

## Methods

### Patient Interviews

Twelve older adults (mean age =  $74.25 \pm 8.11$ ), eight with a diagnosis of mild dementia and four with a diagnosis of schizophrenia (mean MMSE =  $27.42 \pm 1.98$ ), completed medical decision-making interviews using the Assessment of Capacity to Consent to Treatment Interview (Moye et al., 2008), in which they made a medical decision based on hypothetical vignettes. Patients' understanding, appreciation, and reasoning about a medical decision were rated according to standard criteria. Two reasoning scores were derived: a rational reasoning score rating the patient's ability to state and compare risks and benefits of treatments, and a values-based reasoning score based on the patient's ability to justify treatments in terms of the impact on valued relationships and activities. Prior to completing the capacity interview, patients provided information about valued relationships and activities, and their desired involvement in medical decision making. Patients also completed the 3MS (Teng and Chui, 1987).

### Clinician Ratings

Six clinicians listened to 12 decision making capacity interviews, and rated capacity on a six-point scale: 1= very certain has capacity; 2= mostly certain has capacity; 3= somewhat certain has capacity; 4 = somewhat certain lacks capacity; 5 = mostly certain lacks capacity; 6 = very certain lacks capacity. In some analyses, ratings were dichotomized into 'has capacity' (score 1–3) or 'lacks capacity' (4–6). Prior to completing the capacity ratings, clinicians rated their preferences for patient involvement in medical decision making. After completing the capacity ratings, clinicians completed a six-item scale rating emotional responses to patients, adapted from a countertransference scale (Betan et al., 2005).

## Results

### Clinician Agreement

Categorical capacity ratings varied, with some clinicians tending to rate capacity more liberally and some more stringently, as shown in Table 1. For example, in summed categorical ratings, one clinician found 42% of patients to have capacity and another clinician found 83% of patients to have capacity (other ratings were in between). Inter-rater agreement on ordinal scale ratings ranged from  $r = .32$  to  $r = .91$  ( $\chi^2 = 21.82, p < .001$ , Kendall's  $W$ ). Agreement was highest for patients with either very low or very high levels of capacity.

## Patient Variables and Capacity Ratings

Clinician ratings of capacity were associated with the 3MS total score ( $r = .55, p = .07$ ), and patients' rational reasoning score ( $r = .87, p < .001$ ). Capacity ratings were weakly correlated with values based reasoning scores ( $r = .39, p = .22$ ), but this varied by clinician, with correlations ranging from  $r = .14$  to a high of  $r = .52$ , as shown in Table 1.

## Clinician Variables and Capacity Ratings

Higher ratings of preferences for patient involvement in treatment decision making were weakly associated with higher capacity ratings ( $r = .33, p = .51$ ). Further, the greater the discordance between clinicians' and patients' preferences about patient involvement in medical decisions, the lower patient capacity was rated ( $r = -.42, p = .18$ ).

Clinician affective responses to patients were strongly associated with capacity ratings. Higher negative emotional responses were associated with lower capacity ratings (discomfort,  $r = -.84, p < .001$ ; frustration,  $r = -.83, p < .001$ ; disinterest  $r = -.63, p = .03$ ). In regression analyses, cognitive status (3MS) was not significantly predictive of capacity ratings ( $\beta = .25$ ) but a summary score of negative emotional responses was ( $\beta = .72, R^2 = .80, p < .001$ ).

## Discussion

In this study, as with others, clinicians varied in their ratings of the same patient's decision making capacity. Clinicians differentially considered "rational" reasoning versus values-based reasoning. Several clinician factors were associated with capacity ratings, including clinician preferences about patient involvement in medical decisions, clinician-patient mismatches on this preference, and clinician emotional reactions to patients.

Decisions – both those by patients about their own care, and those by clinicians about the capacity of patients – may be made in an intuitive manner, influenced by underlying values and attitudes (Charland, 1998; Kluge, 2005). Based on current findings, such noncognitive factors may influence clinicians' decision making. Clinicians would benefit from a better understanding of how noncognitive factors influence their own decision making so they can more objectively evaluate patient capacity. Understanding the process of capacity judgments, and improving the overall quality of capacity assessment will allow clinicians to support autonomy in older adults with intact decisional capacity, protect those who lack capacity, and intervene to maximize capacity in marginally impaired patients.

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**Table 1**

Rater	Mean capacity rating <sup>a</sup>	% has capacity <sup>b</sup>	Correlation with other raters <sup>c</sup>	Correlation with 3MS	Correlation with Rational Reasoning	Correlation with Values-Based Reasoning
1. Psychiatrist	3.91±1.83	58.3%	.54	.57	.55	.52
2. Psychiatrist	3.42±1.24	50.0%	.68	.36	.84*	.34
3. Geriatrician	3.75±1.49	58.3%	.73	.52	.81*	.44
4. Geriatrician	5.00±1.28	83.3%	.74	.65*	.93*	.28
5. Psychologist	3.08±1.56	41.7%	.70	.37	.84*	.24
6. Psychologist	4.00±1.86	50.0%	.52	.30	.49	.14

\*  $p < .05$

<sup>a</sup> Mean rating of capacity across all 12 patients on a six point scale.

<sup>b</sup> Percent of total patient sample rated capable dichotomizing the six point scale.

<sup>c</sup> Mean correlation between clinician and five other clinicians.