

A Clinical Study of Competency in Child Psychiatric Inpatients

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A 17-item competency questionnaire, modified for use with children and adolescents (CQ-ChP), was used to evaluate competency to consent to hospitalization and treatment in child psychiatric inpatients. A total of 25 consecutive English-speaking psychiatric child inpatient admissions were studied. Demographic data were statistically analyzed using χ^2 , and there were no significant statistical differences between the competent and incompetent groups (using CQ-ChP scores and cut-offs). The various demographic/clinical variables and scores on the questionnaire were also statistically evaluated using χ^2 . The only statistical significance was the association between reading level and competency with a value of $p < .05$. Therefore, by achieving a reading level at the fifth-grade standard, subjects were found to be competent as measured by the CQ-ChP.

Competency is fundamentally a legal issue dealing with the mental capacity or ability of an individual to perform a given act. Most states afford people the right of self-determination and competency at the age of 18 years. In some states, if the adolescent is emancipated, they may be able to exercise this competency before their 18th birthday. In New York State, adolescents age 16 years and older may sign themselves into a voluntary psychi-

atric hospital for treatment. Also, in some states, adolescents over the age of 14 years may consent to health care without parental consent. This is a status that is subject to change by legislative acts.

The concept of competency is an important area of legal/psychiatric/medical interchange. The issue of competency in pediatrics and child psychiatric patient populations has taken on increasing relevance. In the famed Gault decision,¹ it was determined that almost every constitutional protection afforded to a given adult in any stage in a judicial hearing after arrest must also be afforded a juvenile defendant when his or her liberty is at stake. This decision and its implications illustrate a transition in legal conception of the adolescent's rights and competency.

Historically, adult status and its con-

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comitant rights were accorded to an individual with the achievement of pubertal maturation, at approximately age 13 to 14 years.² After puberty, adolescents were treated as adults in court. This position changed with the women's and children's rights movement of the late 1800s. In 1899 the first juvenile justice system was established in Illinois. The prevailing idea became that adolescents under the age of 21 years needed guidance rather than retribution from the courts. Under the doctrine of *parens patriae*, children and adolescents were presumed incompetent, thus obtaining neither rights nor responsibilities from the courts. Beginning in the 1960s, there has been a rebalancing, providing adolescents rights and responsibilities similar to those of adults in a court of law, especially for medical care and felony crimes.

A number of clinical studies have been performed to examine the capabilities of patients, hospitalized for various reasons, to consent to their hospitalization and treatment. Appelbaum *et al.*³ created a competency questionnaire (CQ), to be administered orally, in his study of 50 voluntary psychiatric inpatients. Only 50 percent of his patients thought that they had psychiatric problems that required treatment. Also, 50 percent did not know that they had a right to refuse medication and to speak with a lawyer. Fully one-half of the patients were not aware that the hospital could not hold them against their will, despite their having been given all of this information at the time of their admission.

Norko *et al.*⁴ replicated this study using the CQ with 100 consecutive voluntary

adult psychiatric inpatient admissions. They found that 85 percent of their patients knew they had a psychiatric problem that needed treatment. Although these were voluntary patients, 20 percent of them denied their need to be in the hospital. Norko *et al.* found that the CQ has a high interrater reliability.

Clark and Billick⁵ studied involuntary adult psychiatric inpatients using the CQ. They found that 53 percent of the patients thought that they had a psychiatric problem that required treatment, a percentage comparable to that obtained by Appelbaum. Only 37 percent of Clark's patients understood the role of their physician, and 42 percent understood the role of the medication. In addition, 20 percent of the patients were unsure of whether the hospital could keep them against their will, and 16 percent did not know what steps to take to obtain discharge. Billick *et al.*,⁶ studying adult psychiatric inpatients, found the CQ to have high validity when compared with a blind, independent forensic psychiatric assessment for competency to consent to hospitalization and treatment.

Casimir and Billick,⁷ using a CQ modified for adolescent psychiatric inpatients (CQ-ChP), found the adolescents to be most similar to involuntary adult psychiatric inpatients. Billick *et al.*⁸ studied adult general hospital inpatients admitted to the surgical and medical departments using the CQ modified for medical/surgical patients (CQ-Med). He found the medical/surgical patients to have overall superior competence to the adult voluntary psychiatric inpatients when comparing the CQ and CQ-Med scores.

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Weithorn and Campbell⁹ suggested that, based on Piagetian observation, more adolescents than previously thought have the requisite cognitive skills to demonstrate competency, even according to the highest legal standard and appreciation. Currently, because the age of competency is generally 18 years, few adolescents are presently afforded these rights. Weithorn and Campbell mention, however, that little research exists that directly tests the above proposals in a treatment context. The goal of the current study is to examine children's competency to consent to psychiatric hospitalization and treatment using the CQ-ChP⁷ (Appendix I). Of particular interest in our study is the developmental aspect of competency in children, to determine whether the CQ-ChP can provide data to support "an age of competency."

Methods

Twenty-five consecutive English-speaking admissions to the child psychiatry inpatient service of an urban university hospital were studied. Demographic data collected included each subject's age, sex, socioeconomic (SES) status, and reading level. Using the standard at the time of data collection, DSM-III-R diagnoses (categories were adjustment disorder, conduct disorder, impulse control disorder, depression, oppositional-defiant disorder, attention deficit disorder, general anxiety and psychotic disorders) were recorded for each patient.

Using the CQ-ChP, which comprises 17 items (see Appendix I; item 7 and 10 each has two parts), subjects were approached by one of the investigators

within 72 hours of their admission. Informed consent was obtained from all subjects participating in the study as well as from their parents or guardians. Only fluent English-speaking patients were included in this study. After obtaining consent, the CQ-ChP was administered orally. Responses were graded using the two-point system developed in the previous competency studies (acceptable response = 1, unacceptable response = 0). Additionally, to obtain a projective IQ score, the children were administered the Wechsler Intelligence Scale for Children-Revised (WISC-R) vocabulary subtest.

The results obtained from this study were compared with results from previous similar studies of voluntary and involuntary adult psychiatric inpatients, adolescent psychiatric inpatients, and adult general hospital inpatients. Multiple statistical correlations were made between overall scores, individual scores, scores on question groupings, age, sex, educational level, IQ, projected IQ, reading level, DSM-III-R diagnosis, socioeconomic status, ethnicity, and number of previous hospitalizations. Significance was determined using standard methods of data analysis. A correlation between the questionnaire and the WISC-R vocabulary subtest score was evaluated.

The patients were divided into three groups: (1) competent by CQ-ChP score greater than or equal to 9; (2) incompetent by CQ-ChP score less than 9; and for a second appraisal, (3) incompetent by CQ-ChP score less than 6. These cut-off scores were established by prorating the scores in the CQ validation study⁶: score of 9 for the yes/no two-tier category,

Table 1
Demographic Data and Results: Competent Versus Incompetent Patients

	Total Patients (N = 25)	Competent (≥9) (N = 18)	Incompetent (<9) (N = 7)	Sig ^a	Incompetent (≤6) (N = 5)	Sig
Gender						
Female	9 (36.0) ^b	7 (38.9)	2 (28.6)	NS	1 (20.0)	NS
Male	16 (64.0)	11 (61.1)	5 (71.4)		4 (80.0)	
Age, years	9.9 ± 2.0	10.1 ± 2.0	9.6 ± 2.0	NS	9.0 ± 2.0	NS
Grade level						
1	1 (4.0)	1 (5.6)		NS		NS
2	4 (16.0)	2 (11.1)	2 (28.6)		1 (20.0)	
3	4 (16.0)	2 (11.1)	2 (28.6)		2 (40.0)	
4	1 (4.0)	1 (5.6)				
5	1 (4.0)	1 (5.6)				
6	10 (40.0)	7 (38.9)	3 (42.9)		2 (40.0)	
7	4 (16.0)	4 (22.2)				
Reading grade level						
1	4 (16.0)	2 (11.8)	2 (28.6)	<.05	2 (40.0)	<.05
2	3 (12.0)	1 (5.9)	2 (28.6)		2 (40.0)	
3	4 (16.0)	3 (17.6)	1 (14.3)			
4	5 (20.0)	3 (17.6)	2 (28.6)		1 (20.0)	
5	1 (4.0)	1 (5.9)				
6	7 (28.0)	7 (41.2)				

^aSig, significance.

^bNumbers in parentheses are percentage of total.

scores of 9 to 6 for the yes/uncertain/no three-tier categories (see Table 1). The competent group (group 1) was compared first with the incompetent group (group 2) and then with a subset of group 2 (group 3).

Results

A total of 25 English-speaking child psychiatric inpatient consecutive admissions (no refusals) were studied. Demographic data (see Table 1) were statistically analyzed using χ^2 , and there were no significant statistical differences between the competent and incompetent groups (using CQ-ChP scores and cut-offs). The mean age for the total population was 9.9 years. The mean age for the competent patients was 10.1 years and for

the incompetent patients, 9.6 years. The maximum grade in school was the seventh grade, with an average grade level of 4.7 years. The maximum reading level achieved was a sixth-grade level with an average reading level of 3.7.

Overall, 36 percent of the subjects ($n = 9$) participating in the study were female compared with 64 percent ($n = 16$) male. Of the competent (a score of ≥ 9 on the CQ-ChP) patients, 38.9 percent ($n = 7$) were female, whereas 28.6 percent of the incompetent (score of < 9 on the CQ-ChP) patients were female. Of the competent patients, 61.1 percent were male, while 71.4 percent of the incompetent patients were male. The maximum number of previous hospitalizations was two, with 64 percent ($n = 16$) of the patient

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Table 2

Linear Correlation: Questionnaire Total Score Versus Linear Demographics ($N = 25$ patients)

	Minimum Clinical (total Q1–Q3) ^a	Broad Clinical (total Q4–Q9)	Legal Criteria (total Q10A–Q15)	Questionnaire Total Score (total Q1–Q15)
Questionnaire Total Score	$p < .0001$	$p < .0001$	$p < .0001$	
Age	NS	NS	NS	NS
Grade level	NS	NS	NS	NS
Reading level	NS	NS	$p < .05$	$p < .04$
Vocabulary raw	NS	NS	$p < .01$	$p < .04$
Vocabulary scaled	NS	NS	NS	NS
IQ, projected	NS	NS	NS	NS
IQ, actual	NS	NS	NS	NS

^aQ, question (e.g., Q1).

population having had no previous hospitalizations; 24 percent ($n = 6$) had one previous hospitalization, and 12 percent ($n = 3$) had two previous hospitalizations.

Depression was the most common diagnostic category, applicable to 28 percent of cases, followed by adjustment disorder with 20 percent, psychotic disorder with 16 percent, conduct disorder with 12 percent, and attention deficit disorder with 8 percent. Only one patient fell into the combined category of impulse control disorder, oppositional defiant disorder, and generalized anxiety disorder.

Blacks were the largest racial subgroup, comprising 44 percent ($n = 11$) of the total population. Asian subjects were the next largest subgroup with 28 percent ($n = 7$), followed by Caucasian subjects with 16 percent ($n = 4$). The socioeconomic status of the patient was categorized using a scale ranging from level one (highest SES) to level five (lowest SES). The majority of the subjects came from lower/middle SES family backgrounds,

48 percent falling into level four and 20 percent falling into level five.

A projected mean IQ score of 86 was found using the WISC-R vocabulary subtest. The various demographic/clinical variables and scores on the questionnaire were statistically evaluated using χ^2 , and the *only* statistical significance was the association between reading level and competency with a value of $p < .05$. By achieving a reading level at the fifth-grade standard, all the subjects were found to be competent as assessed by their CQ-ChP cut-off scores.

When the total questionnaire (question 1 (Q1) through 15 (Q15)) was broken down into the following categories—(1) Minimum Clinical Total Q1 through Q3; (2) Broad Clinical Total Q4 through Q9; and (3) Legal Criteria Total Q10a through Q15—there was a significant statistical correlation between Legal Criteria and reading score ($p < .05$) as well as between Legal Criteria and WISC-R vocabulary subtest raw score ($p < .01$). The total score of the CQ-ChP correlated

linearly with both the reading score ($p < .04$) and the WISC-R vocabulary subtest raw score ($p < .04$; see Table 2).

When the results of the individual questions (Q1 through Q15) were compared with the overall CQ-ChP competency score, Q5, Q7b, and Q14 all had a statistical correlation with a significance of $p < .05$, whereas Q2, Q3, and Q7a had a statistical correlation with a significance of $p < .01$. Individually these questions, when answered correctly, correlated with an overall competent score on the CQ-ChP.

Discussion

Competency to consent to medical treatment is a particularly critical issue in psychiatry because of the special concern for the liberties of patients who are often incapable of self-advocacy. This is an important concern because it is the very nature of psychiatric illness that often impairs the patient's ability to give informed consent to treatment for that very same illness. Of interest in this study was the lack of correlation between psychiatric diagnosis and competency. This finding may be due to the fact that psychosis or organic brain disorders correlated most highly with lack of competency, and these diagnoses were rare among the patients in this study.

The issue of competency in the pediatric and child psychiatric patient populations has become increasingly relevant. By using the CQ-ChP, this study sought to examine one single aspect of competency: the competency of children to consent to psychiatric hospitalization and

treatment. The results support the Piagetian observation of acquisition of concrete operational thinking as the acquisition of competency, at least for this single aspect. This stage is generally achieved by 12 years of age, correlating generally with a fifth- or sixth-grade reading level. The current study did not support an actual chronological age as a competency cut-off, but rather used reading level and acquired ability. Clearly some older adolescents may not have achieved the same reading level of some younger, more precocious children. The ability to reason and have judgment would naturally correlate better with ability than with age. The positive correlation of competent performance on the CQ-ChP is with the WISC-R vocabulary subtest raw score, which is essentially an achievement test, again similar to reading ability acquisition. IQ or the vocabulary subtest scaled score would be correlated with innate ability and not necessarily with achievement. A highly intelligent 5-year-old would probably not be as competent as a 15-year-old of average intelligence.

The results further support the developmental acquisition of competency and thus also the growing trend in society to give children, especially adolescents, a greater role in decision-making. Further research would be helpful in refining the CQ-ChP, perhaps achieving a more reliable and valid as well as shorter version, as was done with the CAGE four-item questionnaire in alcohol abuse screening. In particular, it would be helpful to have the CQ-ChP separately validated as was done for the adult CQ. This validation

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would identify any bias of the instrument regarding the propensity of many children to answer questions affirmatively. This is not necessarily a problem for the CQ-ChP, since many questions require explanations as answers. However, it would be an important issue to address in terms of validation. The CQ-ChP may be a helpful adjunct to support the clinician's assessment of this specific competency in children in psychiatric hospitalization. It would be helpful if the CQ-ChP, or future modifications of this instrument, could serve as a prototype for other specific types of competency assessments in children.

Conclusion

The CQ-ChP supports the notion of the developmental acquisition of children's competency to consent to psychiatric hospitalization and treatment. Given the growing awareness of continued stages of development and ongoing reassessment of legal standards for juveniles, one area that merits future research is that of child developmental competency. Closer examination should also be given to a modification of the CQ-ChP into a shorter version. The CQ-ChP may be quite helpful as a tool to support the clinician's assessment of this specific competency in children.

Appendix I

1. Do you think that you have psychiatric problems?
2. Do you think that you need some kind of treatment for your problems?
3. Do you think that you need to be in the hospital to get that treatment?

4. What will your doctor do for you while you are in the hospital?

5. What will the medication do for you while you are in the hospital?

6. Are there other things that go on in the hospital that you think will be of benefit to you that can't be done as an outpatient?

7. (a) Why do you think the doctor you saw recommended that you come into the hospital? (b) Why do you think that your parents recommended that you come into the hospital?

8. Do you think that you will go along with your doctor's suggestion for treatment here in the hospital?

9. What would you do if you were having what you thought were unpleasant side effects from the medication?

10. (a) What procedure would you have to follow if you wanted to leave the hospital and you doctor continued to think that you were not ready to go? (b) What procedure would you have to follow if you wanted to leave the hospital and you parents continued to think that you were not ready to go?

11. Do you have to take the medication if you don't want to?

12. Do you have access to a lawyer if you need one?

13. Does the hospital have someone you can talk to about your legal rights as a patient?

14. Are there any disadvantages to your being hospitalized?

15. Can the hospital keep you against your will if you want to leave and your doctor doesn't think that you are ready to go?

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