

Adolescents Are Less Satisfied with Inpatient Psychiatric Care than Their Parents: Does It Matter?

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Patient satisfaction is a commonly used measure of healthcare quality. The association between patient experience and clinical outcomes has been highlighted for decades (e.g., Boulding, Glickman, Manary, Schulman, & Staelin, 2011; Donabedian, 1980; Sequist et al., 2008). Healthcare facilities variably measure patient satisfaction for internal and external use. The Center for Medicare and Medicaid Services (CMS, 2013a) developed the Hospital Consumer Assessment of Healthcare Providers and Systems survey (HCAHPS) in 2002 to standardized assessment in inpatient medical and surgical settings. Implemented in 2006 and publicly reported in 2008, results from HCAHPS allow for meaningful comparison among hospitals (CMS, 2013a). The HCAHPS measure is widely used in part due to reimbursement penalties (e.g., Deficit Reduction Act of 2005) and incentives (e.g., Patient Protection and Affordable Care Act of 2010, P.L. 111-148) associated with utilization of and reporting of results. Of note, the HCAHPS surveying methodology excludes patients who have a primary psychiatric diagnosis or are under age 18.

Assessment of psychiatric patients' satisfaction with care is less standardized; few measures exist (Hermann, Regner, Erickson, & Yang, 2000). The Agency for Healthcare Research and Quality (AHRQ) recently coordinated development of the Experience of Care and Health Outcomes (ECHO) survey as a measure of *adult* patients' overall satisfaction with behavioral healthcare in an *outpatient* setting (ECHO Development Team et al., 2001). Recognizing this gap, private institutions have developed reliable and valid measures of patient experience unique to inpatient psychiatric settings, such as McLean Hospital's Perception of Care survey (POC; Eisen, Wilcox, Idiculla, Speredelozzi, & Dickey, 2002). This 20-item measure asks patients to rate their perception of care across four domains: interpersonal aspects of care, continuity/coordination of care, communication/information received from treatment providers, and global evaluation of care.

Abstract: **Objective:** Patient satisfaction is a commonly used measure of healthcare quality. Limited research exists among psychiatric inpatients, especially adolescents, who pose unique challenges. This study sought to (1) concurrently assess adolescents' and parents' satisfaction with treatment and (2) compare their perspectives' association with treatment outcomes.

Methods: This exploratory study assessed discharged adolescents from a specialty psychiatric hospital. Adolescent patients and parents completed the Perceptions of Care survey (POC), a measure of patient satisfaction. Patients also completed the Youth Self-Report measure, while parents also completed the Child Behavior Checklist—both are used as measures of mental health treatment outcomes.

Results: Adolescents and parents gave favorable overall ratings of care. Adolescents were more critical than their parents, and there was little agreement between them. Adolescents' ratings on the POC frequently related to outcomes, whereas parents' ratings rarely did.

Conclusions: Ratings of satisfaction with adolescent healthcare can vary depending on whether patients or caregivers are assessed. The discrepancy between them contains value: adolescents' perception may be a better gauge of treatment outcomes and may affect treatment adherence. Future research should examine adolescent-specific concerns in the context of satisfaction with care and relate them to longer term treatment outcomes.

The HCAHPS and POC surveys share a number of overlapping survey themes, but there are notable differences. Both ask questions related to interpersonal aspects of care (e.g., treated with courtesy, staff listened to them), but the HCAHPS' items distinguish ratings of care that nurses and doctors provide, whereas the POC asks more generally about care that staff provide. Both survey tools have items that ask about posthospital discharge planning. The HCAHPS items tend to be more general, while the POC items tend to be specific to mental health treatment (e.g., postdischarge support groups). HCAHPS and POC both have item content related to patient/provider communication (e.g., explaining new medication indication and potential side effects). Both surveys also have questions pertaining to global assessments of care. There are a few notable differences. The HCAHPS has a number of items

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related to the environment of care and pain management, whereas the POC does not. HC-AHPS does not survey about specific interventions, while the POC does. Though similar measures, each contains item content unique to the medical/surgical and psychiatric settings.

Most of the empirical literature in the psychiatric patient satisfaction arena relates to adults' perception of care. Assessment of child and adolescent POC is less common and is variably based on the patient's or parent's ratings of care, if even specified. Gaining the perspective of adolescents is important for several reasons. First, during adolescence, responsibility for healthcare shifts from parent to the patient (Litt & Cuskey, 1984). For instance, for decades now, parental involvement is no longer necessary for obtaining healthcare in many states for problems related to drug abuse or mental illness (Holder, 1977). Second, developmental stage may affect perception of satisfaction with healthcare. Issues of cost and access to medical care may be relatively unimportant to adolescents (Litt & Cuskey, 1984), while issues of improvement in a stable identity, peer solidarity, and improved family relations may carry more weight for them (Biering & Jensen, 2010). Third, adolescent services are run differently compared to adult services, and it is possible that unit characteristics influence variance in user satisfaction (Bjorngaard, Andersson, Ose, & Hanssen-Bauer, 2008). For example, adolescents typically have less autonomy than adults to make decisions regarding their care; non-emergent medication changes or medical procedures often require parental consent on an adolescent treatment unit. Fourth, it is important to collect satisfaction data from both adolescents and parents due to known discordance between child and parent report (Verhulst & van der Ende, 1992).

Low cross-informant correlations often have led researchers to cast doubt on one or both informants and also have been equated with unreliability (Gould, Bird, & Jaramillo, 1993). However, it is important to keep in mind that different informants may validly contribute different information (Achenbach, McConaughy, & Howell, 1987). Multiple informants are needed to obtain a comprehensive picture of an individual's functioning (De Los Reyes, Thomas, Goodman, & Kunder, 2013). Together, these factors point to the importance of examining factors that determine satisfaction with healthcare from both the adolescent's and

the parent's perspectives. To address the current gap in the literature, this exploratory study sought to (1) concurrently assess adolescents' and parents' satisfaction with inpatient psychiatric care and (2) compare their perspectives' association with treatment outcomes.

Method

Setting

The Menninger Clinic is a 120-bed psychiatric hospital treating patients with serious mental illness. The clinic is unusual for an inpatient setting. It specializes in intensive treatment with lengths of stay typically ranging from 3 to 4 weeks. As is evident from the details below, most patients have had limited benefit from extensive prior outpatient treatment, psychopharmacology, and brief inpatient stays. The relatively long stay allows for more intensive psychopharmacologic and psychotherapeutic interventions in the context of a therapeutic milieu. Of note, during the course of the hospitalization, adolescents' treatment team members have frequent planned and unplanned dialogue with parents. At admission, the attending psychiatrist spends approximately 2 hr separately with the adolescent and his/her family members. The social worker is the primary point of contact during the hospitalization. He/she has twice weekly scheduled family therapy sessions either via teleconference or in person. When necessary, the psychiatrist has phone contact with family members to obtain consent for changes to a medication regimen. These conversations often are used as opportunities to update parents regarding adolescents' progress in treatment. Parents are allowed onto the units to interact with adolescents and will have informal discussions with various treatment team members. Family visitation is a strongly encouraged component of the inpatient treatment. Scheduled and as needed, communication between treatment team and parents is the standard of care.

Participants

Two hundred six adolescent inpatients ($N = 206$) were discharged from the Menninger Clinic between January 1, 2012, and September 30, 2013. Not all discharged patients (or their parents) completed the patient satisfaction or treatment outcome measures (discussed in detail below). One hundred twenty-nine

adolescents ($n = 129$; 62.6% participation rate) and 101 parents (49.0% participation rate) completed a measure of patient satisfaction, the POC. There were complete overlapping data from a subset of adolescents and parents: 71 (34.5% participation rate) dyads of adolescents and parents completed the POC. Note, an additional five pairs of adolescents and parents completed enough items on the POC to provide overlapping data for two of the four POC domains (i.e., interpersonal aspects of care and global evaluation of care). With respect to demographic characteristics, the study sample consisted predominantly of teenaged (mean \pm SD age in years, 15.3 ± 1.5), White (86.9%) females (64.6%). Overall, the sample had a substantial psychiatric history: having been in psychotherapy for more than 1 year (59.4%), having had two or more previous therapists (81.1%), having had two or more previous psychiatrists/prescribing providers (56.8%), having had at least one acute (1–5 days) psychiatric hospitalization (51.4%), and having had at least one extended (>5 days) psychiatric hospitalization (48.8%).

Procedure

As part of standard of care, patients participate in a hospital-wide quality and outcomes project (Sharp et al., 2009), completing myriad assessments during their hospitalization. At discharge, adolescents are asked to complete the POC (Eisen et al., 2002) and Youth Self-Report (YSR; Achenbach, 1991) measure; at the same time, parents are asked to complete the POC and the Child Behavior Checklist (CBCL; Achenbach, 1991). Adolescent patients and their parents complete the *same* patient satisfaction measure, the POC. It differs solely in terms of items worded in the first person (adolescents' POC) or third person (parents' POC). On the other hand, adolescent patients and their parents complete *parallel forms* of treatment outcomes measures from the Achenbach System of Empirically Based Assessment (ASEBA; Achenbach, 1991), the YSR, and CBCL, respectively. Formal assessment of symptoms and outcomes at admission, during hospitalization, and discharge is a unique characteristic of the Menninger Clinic. A number of barriers exist to incorporating such an extensive measurement system into clinical practice, and few have had the success that the Menninger Clinic

has had (Madan et al., 2008, 2010). The Baylor College of Medicine's and the University of Houston's Institutional Review Boards (IRBs) approved the use of these data.

Measures

The POC is a 20-item measure of satisfaction with inpatient psychiatric care across four domains: interpersonal aspects of care, continuity/coordination of care, communication/information received from treatment providers, and global evaluation of care. Adolescent patients and their parents independently complete the POC at discharge. Seventeen of the first 18 items are rated on a 4-point Likert scale. Similar to the HCAHPS measure, one global item asks patients to rate their overall impression of care on a scale of 1 to 10; scores of 7 and greater are considered favorable ratings of care. The remaining two items are open-ended. All ratings are converted onto a 0–100 scale; higher scores indicate greater satisfaction. See Eisen et al. (2002) for further details.

The two treatment outcome measures used in this study were the YSR and CBCL (Achenbach, 1991). Both are measures of psychopathology. At discharge, adolescents complete the YSR, and their parents complete the CBCL. Both measures contain 112 problem items, each scored on a 3-point scale (0 = *not true*, 1 = *somewhat or sometimes true*, or 2 = *very or often true*). They differ most prominently in terms of items worded in the first person (adolescents' self-report on the YSR) or third person (parents' perceptions of their child's functioning on the CBCL). Otherwise, they have almost identical item content—except for four items. Both measures yield scores on eight empirically derived syndrome scales: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior. Two higher order factors also are available—internalizing and externalizing. Syndrome and factor scores are norm-adjusted, resulting in t scores with a mean of 50 and a SD of 10. In general, higher scores are indicative of greater psychopathology. Scores of 65 and below are considered in the normal range of functioning. Scores of 66 through 69 are considered in the borderline range of functioning. Scores of 70 and greater are considered in the clinically significant range of functioning.

Data Analyses

Descriptive statistics are provided in terms of means and *SDs* for continuous variables and frequencies and percentages for categorical variables. Ratings from the dyads of adolescents and parents on the four POC domains were compared using paired-samples *t* tests. This parametric approach was used because responses from adolescents and parents are not independent but are related. Knowing scores from adolescents tells one something—however marginally—about scores from parents, and as such a paired-samples *t* test is an appropriate test statistic under these circumstances (Howell, 1997). Comparisons of POC ratings from adolescent patients who were part of a dyad to adolescent patients who were not part of a dyad were done using independent samples *t* tests. Comparisons of POC ratings from parents who were part of a dyad to parents who were not part of a dyad were also done using independent samples *t* tests. Pearson product moment correlation coefficients were calculated to determine the associations between POC subscales between adolescents and adults as well as relationships between POC subscales and outcome measures. Correlation analyses were based on all available data from adolescent patients and their parents. All analyses were done using SAS 9.3. Statistical significance was set at $p = .05$.

Results

The vast majority of adolescents (83.7%) and parents (94.1%) gave favorable overall ratings of the care they received. Adolescents consistently rated their satisfaction with care lower than their parents did across all four domains: interpersonal aspects of care [$t(75) = -7.76, p < .001$], continuity/coordination of care [$t(70) = -4.50, p < .001$], communication/information received from treatment providers [$t(70) = -3.07, p = .003$], and global evaluation of care [$t(75) = -5.28, p < .001$]. See Table 1 for additional details. Adolescent patients who were part of a dyad did not differ in their ratings across all four POC domains from adolescent patients who were not part of a dyad: interpersonal aspects of care [$t(119) = 0.767, p = .444$], continuity/coordination of care [$t(119) = 0.849, p = .398$], communication/information received from treatment providers [$t(119) = -0.949, p = .345$], and global evaluation of care [$t(119) = 0.608, p =$

.544]. Similarly, parents who were part of a dyad did not differ in their ratings across all four POC domains from parents who were not part of a dyad: interpersonal aspects of care [$t(93) = -1.713, p = .090$], continuity/coordination of care [$t(93) = 0.525, p = .601$], communication/information received from treatment providers [$t(93) = 0.179, p = .858$], and global evaluation of care [$t(93) = -1.366, p = .175$]. There was less than perfect agreement between adolescents' and parents' across all four domains: interpersonal aspects of care ($r = .311, p = 0.006$), continuity/coordination of care ($r = .221, p = .064$), communication/information received from treatment providers ($r = .103, p = .393$), and global evaluation of care ($r = .560, p < .001$).

For the majority of syndrome subscales and factors scores on the YSR, adolescents at discharge scored in the normal range of functioning with the exception of the anxious/depressed syndrome subscale. On the other hand, parents' ratings of their adolescents on the parallel CBCL at discharge indicate considerably more psychopathology: one syndrome scale scored in the clinically significant range (anxious/depressed), three syndrome scales scored in the borderline range, and one factor scored in the clinically significant range. See Table 2 for details.

Adolescents' ratings on the POC frequently related to outcomes, whereas parents' ratings rarely did. Adolescents' ratings on the POC correlated modestly and exclusively in the negative direction with the YSR scales. Significant correlations were evident in 15% (6/40) of possible correlations. Similarly, adolescents' ratings on the POC correlated modestly and mostly in the negative direction with the CBCL scales. Significant correlations evident in 20% (8/40) of possible correlations. Statistically significant correlations among parents' ratings on the POC, YSR, and CBCL were evident in 1.1% (1/80) of possible correlations. See Table 3 for details.

Discussion

Adolescents and their parents appear to be generally satisfied with inpatient psychiatric care in an extended stay setting. Both share areas of satisfaction and concern, though adolescents tend to be more critical of services than their parents. Adolescents report that they are experiencing limited psychopathology after an extended inpatient psychiatric

Table 1. Adolescent and Parent Mean \pm SD Ratings across Perception of Care Domains

Domain	N	Adolescent	Parent	p-Value
Interpersonal aspects of care	76	68.8 \pm 22.6	88.7 \pm 14.2	<.001
Continuity/coordination of care	71	56.8 \pm 30.6	75.7 \pm 26.0	<.001
Communication/information received from treatment providers	71	87.1 \pm 23.1	96.2 \pm 12.0	.003
Global evaluation of care	76	76.0 \pm 22.2	87.2 \pm 13.8	<.001

Table 2. Adolescent and Parent Mean \pm SD Scores across Syndrome Scales and Factors on Treatment Outcome Measures (Youth Self-Report [YSR] measure and Child Behavior Checklist [CBCL], respectively)

	Adolescent Outcomes (YSR)	Clinical Significance	Parent Outcomes (CBCL)	Clinical Significance
Anxious/depressed	66.5 \pm 12.6	Borderline range	72.3 \pm 10.6	Clinical range
Withdrawn/depressed	62.6 \pm 11.0	Normal range	68.7 \pm 9.8	Borderline range
Somatic complaints	57.5 \pm 8.3	Normal range	65.5 \pm 9.6	Borderline range
Social problems	59.3 \pm 9.1	Normal range	61.4 \pm 8.3	Normal range
Thought problems	60.9 \pm 9.0	Normal range	65.8 \pm 7.3	Borderline range
Attention problems	61.1 \pm 10.3	Normal range	62.8 \pm 8.8	Normal range
Rule breaking behavior	61.4 \pm 9.4	Normal range	62.7 \pm 8.7	Normal range
Aggressive behavior	56.6 \pm 8.0	Normal range	60.3 \pm 7.6	Normal range
Internalizing problems	61.9 \pm 13.4	Normal range	70.5 \pm 7.9	Clinical range
Externalizing problems	57.0 \pm 11.5	Normal range	61.1 \pm 9.1	Normal range

hospitalization. Parents, on the other hand, feel that their children continue to experience clinically significant difficulties with anxious depression and residual difficulties related to withdrawn depression, somatic complaints, and thought problems. The discrepancy between adolescents and parents may reflect clinical reality, but may also be influenced by adolescents', but not parents', significant participation in the hospital's extensive and systematic measurement system. There is a growing evidence base that links routine assessment of outcomes with improved treatment outcomes (Azocar et al., 2007). Adolescents participate in outcomes assessment throughout the course of their hospitalization, whereas parents only complete a single measurement—at discharge. Finally, adolescents' perception of satisfaction correlated with self-report and parental report of treatment outcomes; whereas parents' ratings did not.

The use and interpretation of multiple informants' reports comprise key components of best practices in evidence-based assessment

of children and adolescents (Dirks, De Los Reyes, Briggs-Gowan, Cella, & Wakschlag, 2012; Hunsley & Mash, 2007), and inconsistencies among multiple informants' reports are common (De Los Reyes et al., 2013). Informant discrepancies may contain value (De Los Reyes et al., 2013; Dirks et al., 2012). They may be associated with developmentally appropriate behavior; teen-aged angst is an established fact of the human condition. Discrepancies may be a statistical artifact and be attributed to less variability in parents' POC ratings relative to adolescents' ratings. Parents' ratings across POC domains were approaching the upper limits of the measure's possible score, and there may have been a ceiling effect. Finally, the discrepancy between adolescents and parents could be a more accurate reflection of the quality of treatment. Adolescents experienced the treatment firsthand, while parents had some but considerably less contact with treatment team providers. Adolescents may be reporting a more accurate picture of the treatment program's strengths and areas of opportunity: they were generally

Table 3. Correlations among Patient and Parent Perception of Care Ratings and Youth Self-Report and Child Behavior Checklist Scores

	Adolescent				Parent			
	1	2	3	4	1	2	3	4
POC subscale								
CBCL anxious/depressed	-.292*	-.376**	-.15	-.15	-.04	-.14	-.20	-.12
CBCL withdrawn/depressed	-.16	-.349**	-.10	-.298*	-.16	-.06	-.09	-.16
CBCL somatic complaints	-.08	.11	.18	.294*	.22	.225*	.17	.19
CBCL social problems	-.12	-.09	-.14	.04	.09	-.09	.06	-.07
CBCL thought problems	-.10	-.310**	-.20	-.23	-.09	-.03	-.13	-.17
CBCL attention problems	-.03	.07	.00	.15	.09	.02	.11	-.10
CBCL rule-breaking behavior	-.08	-.15	.04	-.07	.01	-.05	-.11	-.16
CBCL aggressive behavior	-.18	-.17	-.07	-.01	.06	.03	-.05	.01
CBCL internalizing	-.267*	-.301*	-.04	-.04	-.04	-.05	-.10	-.08
CBCL externalizing	-.17	-.21	-.03	-.08	.01	-.03	-.13	-.11
YSR anxious/depressed	-.05	-.16	-.18	-.09	-.08	-.06	-.19	-.04
YSR withdrawn/depressed	.11	-.15	-.15	-.178*	-.06	-.05	-.13	-.02
YSR somatic complaints	.07	-.05	-.11	.01	-.01	.03	.10	.07
YSR social problems	-.14	-.222*	-.221*	-.12	-.03	-.07	.00	.00
YSR thought problems	.06	-.10	-.15	-.04	-.08	-.01	-.10	-.04
YSR attention problems	-.07	-.16	-.16	-.15	-.10	-.10	-.16	-.12
YSR rule-breaking behavior	.05	-.13	.07	-.12	.04	-.01	-.09	-.07
YSR aggressive behavior	-.10	-.236**	-.13	-.14	.04	-.13	-.10	-.08
YSR internalizing	.02	-.14	-.212*	-.10	-.08	-.03	-.09	.04
YSR externalizing	-.06	-.192*	-.07	-.16	.02	-.06	-.03	-.02

Note. POC, Perception of care; 1, communication/information received from treatment providers; 2, interpersonal aspects of care; 3, continuity/coordination of care; 4, global evaluation of care; CBCL, Child Behavior Checklist; YSR, Youth Self-Report. *, $p < .05$; **, $p < .01$.

satisfied with most aspects of care but less than satisfied with continuity and coordination of care. Despite there being only modest associations in this study between adolescent patients' satisfaction with care and treatment outcomes, adolescents' perception of care may be a better gauge of potential benefit from treatment than their parents. Parents' satisfaction with care that their children received was not associated with treatment outcomes. Assessment of adolescents' perception of care should be a measure of overall healthcare quality.

In the context of this paper, informant discrepancies point to important factors that should receive special attention in adolescent patient satisfaction. They point to the importance of measures used to assess patient satisfaction. Very little is currently known about what parts of psychiatric inpatient care are important to adolescents. Biering and Jensen (2010) recently conducted a qualitative study to determine how adolescents perceive quality of psychiatric care. They found five concepts to drive adolescent patient satisfaction: secure place, tough love, peer solidarity, self-expression, and person not patient. Currently, no valid mea-

asures exist to examine these adolescent-specific concepts in the context of patient satisfaction. Our findings point to the importance of developing such measures for future use in adolescent inpatient settings.

Though there is an established relationship between patient satisfaction and some outcomes (e.g., Boulding et al., 2011; Donabedian, 1980; Sequist et al., 2008), recent efforts highlight methodological limitations of the empirical base linking the two and highlight the relatively modest relationships reported in them (Fenton, Bertakis, & Franks, 2012). In fact, increasing patient satisfaction rating may be associated with poorer medical outcomes, including greater service utilization, higher overall healthcare costs, and increased mortality (Fenton, Jerant, Bertakis, & Franks, 2012). Efforts to improve patient satisfaction may be having the opposite effect than expected. When extrinsic, frequently financial, contingencies are associated with patients' ratings of care, there is considerable motivation for healthcare providers to acquiesce to even inappropriate patient demands to improve ratings. Assessment of patient satisfaction should be a metric

of healthcare quality, but healthcare providers, administrators, and policy makers must be cognizant of potential distractors of clinical care, ensuring that efforts are directed at improving patients' health rather than merely inflating grades on report cards.

Nonetheless, with adolescents' increasing involvement in their healthcare, improving their satisfaction with treatment should be a priority. There is a significant literature indicating that satisfaction with healthcare is associated with better compliance with treatment recommendations (e.g., Hirsh et al., 2005; Kovac, Patel, Peterson, & Kimmel, 2002), which is a well-established and notorious challenge among adolescents. Rates of noncompliance in adolescent populations vary depending on underlying disease state and facet of medical care that is not followed; they range from 10% to 80% (DiMatteo & Miller, 2013). Noncompliance with treatment recommendations has serious consequences and is associated with worse outcomes among adolescents compared to adults (DiMatteo, Giordani, Lepper, & Croghan, 2002).

This exploratory study has a number of strengths along with weaknesses that must be acknowledged. It is among the first to *explicitly* compare satisfaction with inpatient psychiatric care from *both* adolescents and their parents. Not only are these findings based on a relatively large sample individually of adolescents and parents, but this study provides concurrent data of satisfaction ratings of dyads of both patients and their parents. On the other hand, there is potential concern related to the generalizability of findings. Relatively few comparable inpatient psychiatric settings exist, and the sociodemographic make-up reflects but a small portion of the general population. There also is potential bias in our positive results regarding the general level of satisfaction. Although the level of patient participation was high, it is plausible that those patients for whom we do not have data might represent a relatively dissatisfied subset. Though potentially biased, the participation rate in this sample is much higher than participation rates of medical/surgical discharges, completing the HCAHPS with a national average of 33% (CMS, 2013b), suggesting that any potential sampling bias that might exist in this sample is still less than the gold standard in the field.

Patient satisfaction is an important facet of healthcare quality, including among psy-

chiatric adolescents. Their voice differs from that of their parents and may be a more accurate reflection of the quality of care that they receive. Future efforts should develop measures specific to adolescent concerns, assess their relationship with process variables (e.g., compliance), and elaborate upon their relationship with short- as well as long-term treatment outcomes.

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REFERENCES

- Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4-18, YSR, and TRF profiles*. Burlington, VT: Department of Psychiatry, University of Vermont.
- Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implication of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213–232.
- Azocar, F., Cuffel, B., McCulloch, J., McCabe, J. F., Tani, S., & Brodey, B. B. (2007). Monitoring patient improvement and treatment outcomes in managed behavioral health. *Journal for Healthcare Quality, 29*, 4–12.
- Biering, P., & Jensen, V. H. (2010). The concept of patient satisfaction in adolescent psychiatric care: A qualitative study. *Journal of Child and Adolescent Psychiatric Nursing, 23*, 143–150.
- Bjorngaard, J. H., Andersson, H. W., Ose, S. O., & Hanssen-Bauer, K. (2008). User satisfaction with child and adolescent mental health services: Impact of the service unit level. *Social Psychiatry and Psychiatric Epidemiology, 43*, 635–641.
- Boulding, W., Glickman, S. W., Manary, M. P., Schulman, K. A., & Staelin, R. (2011). Relationship between patient satisfaction with inpatient care and hospital readmission within 30 days. *American Journal of Managed Care, 17*, 41–48.
- Center for Medicare & Medicaid Services. (2013a). HCAHPS fact sheet. Retrieved January 27, 2014, from www.hcahpsonline.org/files/August%202013%20HCAHPS%20Fact%20Sheet2.pdf.
- Centers for Medicare & Medicaid Services. (2013b). Summary of HCAHPS survey results. Retrieved December 31, 2013, from www.hcahpsonline.org/files/October_December_2013_Summary_HCAHPS_Results.pdf.
- De Los Reyes, A., Thomas, S. A., Goodman, K. L., & Kundey, S. M. A. (2013). Principles underlying the use of multiple informants' reports. *Annual Review of Clinical Psychology, 9*, 123–149.

- DiMatteo, M. R., Giordani, P. J., Lepper, H. S., & Croghan, T. W. (2002). Patient adherence and medical treatment outcomes: A meta-analysis. *Medical Care, 40*, 794–811.
- DiMatteo, M. R., & Miller, T. A. (2013). Treatment adherence in adolescence. In W. T. O'Donohue, L. T. Benuto, L. Woodward Tolle (Eds.), *Handbook of adolescent health psychology*. New York, NY: Springer.
- Dirks, M. A., De Los Reyes, A., Briggs-Gowan, M., Cella, D., & Wakschlag, L. S. (2012). Annual research review: Embracing not erasing contextual variability in children's behavior—theory and utility in the selection and use of methods and informants in developmental psychopathology. *Journal of Child Psychology and Psychiatry, 53*, 558–574.
- Donabedian, A. (1980). *The definition of quality and approaches to its assessment*. Ann Arbor, MI: Health Administration Press.
- ECHO Development Team. Shaul, J. A., Eisen, S. V., Claridge, B. R., Stringfellow, V. L., Fowler, F. J. Jr., & Cleary, P. D. (2001). *Experience of care and health outcomes (ECHO) survey. Field test report: survey evaluation*. Rockville, MD: Agency for Healthcare Research and Quality.
- Eisen, S. V., Wilcox, M., Idiculla, T., Sperdelozzi, A., & Dickey, B. (2002). Assessing consumer perceptions of inpatient psychiatric treatment: The perceptions of care survey. *Joint Commission Journal on Quality Improvement, 28*, 510–526.
- Fenton, J. J., Bertakis, K. D., & Franks, P. (2012). Satisfied to death: A spurious result? Reply. *Archives of Internal Medicine, 172*, 1110–1114.
- Fenton, J. J., Jerant, A. F., Bertakis, K. D., & Franks, P. (2012). The cost of satisfaction. A national study of patient satisfaction, health care utilization, expenditures, and mortality. *Archives of Internal Medicine, 172*, 405–411.
- Gould, M. S., Bird, H., & Jaramillo, B. S. (1993). Correspondence between statistically derived behavior problem syndromes and child psychiatric diagnoses in a community sample. *Journal of Abnormal Child Psychology, 21*, 287–313.
- Hermann, R. C., Regner, J. L., Erickson, P., & Yang, D. (2000). Developing a quality management system for behavioral health care: The Cambridge Health Alliance Experience. *Harvard Review of Psychiatry, 8*, 251–260.
- Hirsh, A. T., Atchison, J. W., Berger, J. J., Waxenberg, L. B., Lafayette-Lucey, A., Bulcourf, B. B., et al., (2005). Patient satisfaction with treatment of chronic pain: Predictors and relationship to compliance. *Clinical Journal of Pain, 21*, 302–310.
- Holder, A. R. (1977). *Legal issues in pediatrics and adolescent medicine*. New York, NY: John Wiley and Sons, Inc.
- Howell, D. C. (1997). *Statistical methods for psychology* (4th ed.). Belmont, CA: Wadsworth Publishing Company.
- Hunsley, J., & Mash, E. J. (2007). Evidence-based assessment. *Annual Review of Clinical Psychology, 3*, 29–51.
- Kovac, J. A., Patel, S. S., Peterson, R. A., & Kimmel, P. L. (2002). Patient satisfaction with care and behavioral compliance in end-stage renal disease patients treated with hemodialysis. *American Journal of Kidney Disease, 39*, 1236–1244.
- Litt, I. F., & Cuskey, W. R. (1984). Satisfaction with health care: A predictor of adolescents' appointment keeping. *Journal of Adolescent Health Care, 5*, 196–200.
- Madan, A., Borckardt, J. J., Connell, A., Book, S., Campbell, S., Gwynette, M. F., et al. (2010). Routine assessment of patient-reported outcomes in behavioral health: Room for improvement. *Quality Management in Healthcare, 19*, 70–81.
- Madan, A., Borckardt, J. J., Weinstein, B., Wagner, M., Dominick, C., Cooney, H., et al. (2008). Clinical outcomes assessment in behavioral healthcare: Searching for practical solutions. *Journal for Healthcare Quality, 30*, 30–37.
- Sequist, T. D., Schneider, E. C., Anastario, M., Odigie, E. G., Marshall, R., Rogers, W. H., et al. (2008). Quality monitoring of physicians: Linking patients' experiences of care to clinical quality and outcomes. *Journal of General Internal Medicine, 23*, 1784–1790.
- Sharp, C., Williams, L. L., Ha, C., Baumgardner, J., Michonski, J., Seals, R., et al. (2009). The development of a mentalization-based outcomes and research protocol for an adolescent inpatient unit. *Bulletin of the Menninger Clinic, 73*, 259–295.
- Verhulst, F. C., & van der Ende, J. (1992). Agreement between parents' reports and adolescents' self-reports of problem behavior. *Journal of Child Psychology and Psychiatry, 33*, 1011–1023.

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