

Case Management: The Current Best Practices and the Next Generation of Innovation

Jeffrey R. Bedell, Ph.D.

Neal L. Cohen, M.D.

Ann Sullivan, M.D.

ABSTRACT: Eight published literature reviews of case management were evaluated to determine areas of consensus regarding outcomes associated with full service, broker, and hybrid models. Full service was recommended for “best practice” status and the effectiveness of the broker model was seriously questioned. Research evaluating paraprofessional and peer assisted models of case management, a potential method for improving outcomes, was also reviewed. One promising peer-assisted model was identified and described. Although the use of paraprofessionals and peers in case management holds promise, much more research is needed before the effectiveness of this approach can be confidently determined.

CASE MANAGEMENT: THE STATE OF THE ART

The importance of case management treatment is demonstrated by the fact that there have been eight reviews of the research since 1990 (i.e., Bond, McGrew & Fekete, 1995; Chamberlain & Rapp, 1991; Mueser,

Supported by New York State Office of Mental Health Reinvestment Funding.

Jeffrey R. Bedell and Ann Sullivan are affiliated with the Mount Sinai School of Medicine. Neal L. Cohen is affiliated with the New York City Department of Mental Health, Retardation and Alcoholism Services.

Address correspondence to Jeffrey R. Bedell, Ph.D., Mount Sinai School of Medicine, Elmhurst Hospital Center, Room H3-48, 79-01 Broadway, Elmhurst, NY 11373.

Bond, Drake & Resnick, 1998; Olfson, 1990; Rubin, 1992; Scott & Dixon, 1995; Solomon, 1992; Test, 1992). Current interest may be related to the fact that case management is attractive to managed care (Solomon & Draine, 1995) and is appropriate for persons with serious mental illness, individuals who often do not respond well to standard treatments (Blanch & Surles, 1994).

However, there are many varieties of case management programs. Different models may be associated with different levels of effectiveness. More information about the relative effectiveness of different case management models is needed. Rapp (1998) identified elements of effective case management practice. One basic element he identified was whether case managers provided services themselves or brokered services from other providers. We evaluated programs on this variable by classifying them full service, broker, or hybrid. Before reviewing the various studies, each was classified into one of these three logical types. We selected the "provided vs. brokered" dimension since we believed it was fundamental to how program staff were organized and functioned. Other program variables and combinations of variables such as those described by Rapp (1998) could also be evaluated which might yield additional information about case management.

To evaluate this variable, we examined the eight existing literature reviews. It was recognized that reviewing research reviews was a somewhat novel approach and that there was a large overlap in the studies evaluated by each reviewer. It was proposed that if seven reviewers evaluated the same or similar set of case management studies and independently come to the same or similar conclusions, the findings would have a high degree of credibility. We were looking for areas of consensus among the reviewers.

We found that there was sufficient evidence to recommend "state-of-the-art" or "best practice" status for one model of case management. However, we were also aware that some researchers have attempted to improve case management practice by adding paraprofessionals to the treatment team. In order to evaluate the impact of this innovation on the outcomes of case management treatment, we reviewed this small body of research. Results of this review enabled us to make suggestions regarding this innovation.

The following are descriptions of the three categories of case management evaluated in this review.

Full Service attempted to provide all the clinical and support services needed by the client through the in vivo efforts of a specially trained

interdisciplinary team. Brokering of services was minimized. Training in Community Living, Assertive Community Treatment, Assertive Outreach and The Bridge program (Test, 1992; Bond, McGrew & Fekete, 1995) are examples.

Broker case management provided very little direct service to patients. Rather, services needed by the patient were arranged from among those available in the community mental health system. These programs included Broker, Specialist, Generalist and Supportive (Rubin, 1992; Solomon, 1992; Chamberlain & Rapp, 1991).

Hybrid. In hybrid model programs some services were provided and some were brokered. The distinction between full service and hybrid was a matter of degree. For example, programs characterized as PACT provided virtually all services, and were clearly full service. Other programs such as Intensive Case Management and Strengths expected staff to provide most services but would also broker some services. For the present review, Intensive Case Management, Expanded Broker, Family Case Management, Personal Strengths, Rehabilitation, and Clinical Case Management were considered hybrid models (Rubin, 1992; Solomon, 1992; Chamberlain & Rapp, 1991).

Findings of Eight Case Management Reviews

Table 1 described the findings of the eight reviews in relation to the eight outcome variables used to assess the effectiveness of the full service, hybrid, and broker models of case management. Table 2 summarized the findings of the reviews regarding ratings of effectiveness.

Increased Retention/Compliance with Treatment. Full service case management was consistently associated with increased retention of patients in treatment or compliance with treatment. Hybrid and Broker programs have not been shown to be effective on this variable.

Reduce Days of Hospitalization. Full service seemed to reduce hospitalization as much as 60 percent. Broker services either did not reduce hospitalization or increased the number of hospital days. Results for Hybrid programs varied according to the individual application. Programs that had control of hospital admissions were associated with the greatest reduction in days of hospitalization.

TABLE 1

Summary of Findings of Eight Reviews of Research on Case Management Programs

	<i>Mueser, Bond, Drake & Resnick 1998</i> <i>Mostly reviewed full service and broker programs with random assignment.</i>	<i>Bond, McGrew & Fekete, 1995</i> <i>Reviewed full service programs single group designs. Comparisons to broker and non-case management controls.</i>	<i>Scott & Dixon, 1995</i> <i>Reviewed full service, hybrid and broker programs</i>	<i>Rubin, 1992</i> <i>Reviewed 8 published studies of full service, hybrid and broker model</i>
Increased Retention/Compliance	Not reviewed	Full service—effective—within subject designs showed increase over time. Better retention than comparisons	Full service—effective Hybrid—not effective Broker—not effective	Full Service—mixed results—1 increased, 1 no difference Hybrid—not reported Broker—not reported
Reduced Hospital Days	19 controlled studies comparing full service and broker, full service superior in 12, equal in 5, mixed results in 2.	Full service—effective—17 of 18 studies showed reduction (average = 60.7%)	Full service—effective Hybrid—mixed results—8 showed reduction, 6 no effect Broker—not effective—none showed reduction, 4 showed no effect or increase	Full Service—effective—2 reduced Hybrid—mixed results—1 reduced, 1 no difference Broker—not effective—1 increased hospital days
Increased Quality of Life (QOL)	9 controlled studies, full service superior to broker in 5, equal or worse in 4.	Full service—Not effective 1 of 9 studies showed increase in QOL	Not sufficiently studied to draw conclusion	Full service—mixed—1 increased, 1 no difference Hybrid—not reported Broker—not effective
Increased Level of Function	12 controlled studies, full service superior to broker in 2, equal in 9, mixed results in 1.	Full service—Not effective—increase in GAS in uncontrolled studies, no increase in controlled study	Full Service—effective Hybrid and broker—mixed but promising results	Full Service—effective—1 increased Hybrid—mixed—1 increased, 1 reduced Broker—not reported
Use of Community Services	Not reviewed	Not reviewed	Full service—not effective—either no difference or increased use Hybrid and broker—not effective—increased use	Full Service—not effective—1 no difference Hybrid—not effective—1 increased use Broker—not effective—increased use—1 increased use

TABLE 1 (Continued)

<i>Solomon, 1992</i> <i>Reviewed 20 studies, 14 full support, 6 hybrid</i>	<i>Test, 1992</i> <i>Reviewed full service</i>	<i>Chamberlain & Rapp, 1991</i> <i>Methodological critique of case management research</i>	<i>Olfsen, 1990</i> <i>Reviewed Full Service (TCL) studies only</i>
Full service—mixed results—4 showed increase—4 no difference Hybrid—not effective—1 no difference	Full service (TCL)—effective	Small studies with adequate follow-up more effective than large studies with poor follow-up	Not reviewed
Full service—effective, mixed—7 showed fewer days, 3 no difference Hybrid—mixed—1 showed fewer, 2 no difference, 1 more	Full service—mixed—TCL effective, variants of TCL—not effective	Full service—effective, Hybrid—not effective—showed no differences Broker—not effective—favored controls	TCL only effective when patients had high levels of hospital use prior to receiving case management
Full service—effective—7 showed increase, 1 no difference Hybrid—mixed—2 showed improvement, 2 no difference	Full service—mixed—TCL effective, Assertive Outreach programs—not effective	Need long time period months to show changes—24 months	Only original TCL study effective
Full service—mixed results—2 showed increase, 2 no difference Hybrid—mixed—2 showed increase, 2 no difference	Full service (TCL)—effective	Not reviewed	Only original TCL study and 2 replications effective
Full service—mixed results—2 showed increase, 2 no difference Hybrid—not effective—2 showed increase	Not reviewed	If services adequate or very poor before case management, no change in use	TCL—not effective increased use of residential care

TABLE 1 (Continued)

	<i>Mueser, Bond, Drake & Resnick 1998</i>	<i>Bond, McGrew & Fekete, 1995</i>	<i>Scott & Dixon, 1995</i>	<i>Rubin, 1992</i>
	<i>Mostly reviewed full service and broker programs with random assignment.</i>	<i>Reviewed full service programs single group designs. Comparisons to broker and non-case management controls.</i>	<i>Reviewed full service, hybrid and broker programs</i>	<i>Reviewed 8 published studies of full service, hybrid and broker model</i>
Reduced Cost	Not reviewed but comments suggest Full service reduced costs.	Not reviewed	Full Service—effective Hybrid—mixed— Intensive Case Management—less costly Broker—insufficient data	Full Service—not reported Hybrid—not reported Broker—not effective—1 increased cost
Reduced Symptoms	13 controlled studies, full service superior to broker in 4, equal in 7, mixed in 2.	Not reviewed	Full Service—effective Hybrid and Broker—not effective—poor or mixed results	Not reviewed
Increased or Satisfaction	7 controlled studies, full service more effective than broker in 6.	Not reviewed	Not reviewed	Not reviewed

Increase Quality of Life. None of the three case management models were consistently associated with improved quality of life (QOL). Few reviewers commented on QOL for hybrid and broker programs so conclusions regarding these two models were based on limited information.

Increase Level of Functioning. Improvement in level of functioning (LOF) has only been shown to be associated with full service programs, and this finding is unreliable.

Reduced Use of Community Services. Full service, hybrid, and broker models were not effective on this variable. They were associated with

TABLE 1 (*Continued*)

<i>Solomon, 1992</i> Reviewed 20 studies, 14 full support, 6 hybrid	<i>Test, 1992</i> Reviewed full service	<i>Chamberlain & Rapp, 1991</i> Methodological critique of case management research	<i>Olfson, 1990</i> Reviewed Full Service (TCL) studies only
Full service—effective—7 showed savings, 1 showed increased cost Hybrid—not effective—1 showed increased cost	Full Service (TCL)—effective—yielded small economic advantage	Not reviewed	Not reviewed
Full service—mixed results—2 showed reduction, 2 no difference Hybrid—mixed—1 showed reduction, 1 showed increase	Full Service (TCL)—effective variant programs—less clear	Not reviewed	Only original TCL study and 2 replication effective
Full service—effective—3 showed high satisfaction, 1 low Hybrid—not evaluated	Full service—effective—1 showed improvement	Not reviewed	Pt. prefer community based-programs over hospital based

increased use of expensive, long-term community services. Reduction in use of hospital days for full service was mostly replaced by increased use of community services.

Reduced Costs of Treatment. Modest cost savings were associated with full service and intensive case management models of hybrid treatment. Broker programs were associated with increased costs.

Reduced Symptoms. Full service programs have been associated with reduced symptoms, but not consistently. Symptoms increased for some of the hybrid and broker programs.

Satisfaction. Information on this variable was primarily available in recent research. A high degree of satisfaction was reported from patients in full service programs.

Summary of Results. As may be seen in Table 2, only full service programs received ratings of “effective” meaning they were always or almost always associated with positive outcomes for that variable.

THE NEXT GENERATION OF CASE MANAGEMENT INNOVATION

The previously reviewed studies evaluated models of case management in which services were provided solely by professional staff. In an attempt to improve these types of programs, researchers added paraprofessional staff to the treatment team. Paraprofessionals may be consumers of mental health services or have no history of mental health treatment.

There were several reasons to believe that the addition of a paraprofessional to the case management team may improve outcomes. First of all, the clinical effectiveness of paraprofessionals has been well established, particularly with low income persons who receive services in public mental health settings (Powell & Cameron, 1991). Case management is often provided in such settings.

The effectiveness of paraprofessionals may be partly due to their indigenous status. That is, paraprofessionals tend to live in relative close proximity, share common living experiences, social background, and demographic characteristics with the persons to whom they provide services. Professionals, in comparison, tend to live in areas remote from their low income patients and share fewer social and demographic characteristics. The common background shared by indigenous paraprofessionals and patients may facilitate treatment by fostering better understanding and rapport (Durlak, 1979). The high degree of familiarity with local resources and comfort moving about the community where patients live may be another benefit for persons providing *in vivo* treatment.

There were six¹ research studies that evaluated paraprofessional case

¹A seventh study (Morse et al., 1997) reported a subsample of the Wolff et al. (1997) research. Since the results of the Morse et al. study duplicate those reported by Wolff et al., they were not reviewed separately in this manuscript.

management programs. Two studies evaluated a full service model (Wolff et al., 1997; Edmunson, Bedell & Gordon, 1983), four evaluated a broker model (Wolff et al., 1997; Solomon & Draine, 1995; Solomon & Draine, 1994a; Solomon & Draine, 1994b) and one a hybrid model (Felton et al., 1995). Review of Tables 3 and 4 indicates that, consistent with our findings regarding professional-only models, the most effective outcomes were associated with the full service model and the least with the broker model.

Since the full service programs were associated with the best outcomes, *only* these two studies will be reviewed *in detail*. Both studies of full service case management used consumer paraprofessionals. Wolff et al. reported positive outcomes regarding (1) retention in treatment, (2) reduced hospitalization, (3) reduced cost, (4) reduced symptoms, and (5) increased satisfaction. The program was not associated with positive outcomes regarding (1) *increased* LOF, or (2) reduced use of community services. QOL was not evaluated. Comparison of these results to those summarized for professional-only programs in Table 2 revealed that they were identical. It appeared that addition of a paraprofessional to this full service case management team neither worsened nor improved outcomes.

Unfortunately, Wolff et al. (1997) was not a very good test of paraprofessional full service treatment. Only two-thirds of the patients who were supposed to receive paraprofessional treatment were assigned to a paraprofessional case manager (Morse et al., 1997). Also, the role of the paraprofessional staff was merely to assist professional staff in treatment related to daily living and leisure activities. This job description did not appear to capitalize on the unique therapeutic qualities of the indigenous paraprofessionals discussed earlier in this report.

The second study of full service paraprofessional case management was conducted by Edmunson et al. (1983). This research evaluated (1) frequency of hospitalization, (2) number of days of hospitalization, and (3) amount of use of community mental health services. Positive findings were found for all three outcomes. The finding of reduced use of both hospital and community treatment was noteworthy. Most studies of case management showed a dramatic increase in the use of community treatment when hospitalization was reduced. The job duties of the paraprofessionals in this study may have capitalized on their unique abilities to facilitate non-institutional forms of socialization and in vivo patient monitoring as a partial substitute for long-term mental health care.

DISCUSSION

Full service models of case management were consistently shown to be effective regarding (1) increased retention in treatment, (2) reduced hospital use, (3) reduced costs, (4) reduced symptoms and (5) satisfied consumers. This model was not consistently effective regarding (1) increased QOL and (2) level of functioning (LOF). Full service programs appear to be ineffective regarding (1) reduced use of community services.

The present review suggested that although there may be positive characteristics associated with the use of a broker case management model such as clear assignment of treatment responsibility and high patient-to-staff ratios (Morse et al., 1997; Solomon & Draine, 1995), this approach yields inferior outcomes on eight important variables when compared to full service treatment. The dependence of the broker model on available community services may be the basis of its poor showing. In comparison, the full service model is somewhat self contained and has staff trained to use specialized treatments for persons with serious mental illness.

Results associated with hybrid programs indicated that the more characteristics of full service case management embodied by the program the better the outcomes. This finding is consistent with the review conducted by Rapp (1998) that found many similarities among the characteristics of effective programs. Intensive case management and Personal Strengths were examples of effective hybrid programs with a preponderance of full service components.

Based on this survey of the experts' reviews, full service case management programs were recommended for "best practice" status. It is probably time to abandon the other models of case management that rely heavily on brokering of services since they were associated with inferior outcomes.

The literature on the use of paraprofessionals in case management was reviewed to see if the addition of the unique knowledge and skills possessed by these individuals would improve outcomes compared to the professional-only models. Unfortunately, the greatest amount of paraprofessional research evaluated the broker model, the weakest type of case management. It was shown that even with the addition of a paraprofessional, the broker models were still associated with the poorest outcomes.

There were insufficient studies to firmly conclude that the use of paraprofessionals improved outcomes of professional full service treat-

TABLE 3

Summary of Evaluations of Case Management Services Supplemented by Indigenous Paraprofessionals

<i>Outcome Variable</i>	<i>Wolff et al. 1997</i>		<i>Felton et al. 1995</i>			
	<i>Compared (1) Full Service provided by professional, (2) Full service with pro and non-consumer parapro, and (3) Broker case management provided by professional</i>	<i>Edmunson, Bedell & Gordon 1983</i> <i>Compared (1) Full Service model based on social support and (2) standard community mental health center case management</i>	<i>Compared (1) Hybrid program provided by professional only, (2) Hybrid provided by professional / consumer parapro team, and (3) Hybrid provided by professional / non-consumer parapro team</i>	<i>Solomon & Draine, 1995</i> <i>Compared (1) Broker model provided by non-consumer parapro and (2) Broker model provided by consumer parapro.</i>	<i>Solomon & Draine, 1994</i> <i>Compared (1) Broker model provided by consumer parapro and (2) Broker model provided by non-consumer para-professional</i>	<i>Solomon & Draine, 1994</i> <i>Compared (1) Broker model provided by consumer parapro and (2) Broker model provided by non-consumer para-professional</i>
Retention/ Compliance	Two types of Full Service better than Broker model. No difference between two types of Full Service	Not evaluated	Professional/ consumer parapro team associated with more stable contact	No difference between 2 broker models. No increase over time (baseline, one year, two year) for either model.	Not evaluated	Not evaluated
Hospital Days	All three models showed a reduction. No differences between groups	Full Service social support model resulted in fewer days of hospitalization than standard care	No difference among three models. Combined data from all 3 groups showed decrease over time.	No difference between 2 Broker models. No decrease over time (baseline, one year, two year) for either model.	Not evaluated	Not evaluated
Quality of Life	Not evaluated	Not evaluated	Professional/ consumer parapro team had fewer life problems. Combined data from all 3 groups showed increase in leisure activities and housing stability.	No difference between 2 broker models. Both models showed improvement over time.	Not evaluated	Not evaluated

Level of Function	No differences between three models of case management	Not evaluated	Professional/consumer parapro team showed increase then decline in number of arrests. Combined data from all 3 groups showed increased mastery.	No difference between 2 Broker models. No increase over time (baseline, one year, two year) for either model.	Not evaluated	Not evaluated
Use of Community Services	Two Full Service programs showed more use than Broker	Full Service social support program resulted in less use of community treatment than standard care	No difference among three models. Combined data from all 3 groups showed decrease in use of police services.	No difference between 2 Broker models. No change over time (baseline, one year, two year) for either model.	Not evaluated	Not evaluated
Cost	No differences between three models	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated
Symptoms	Two Full service models showed greater reduction than broker. No difference between two types of Full service	Not evaluated	No difference among three models. Combined data from all 3 groups showed decrease.	No difference between 2 Broker models. No decrease over time (baseline, one year, two year) for either model.	Not evaluated	Not evaluated
Satisfaction	Two Full Service models higher than Broker. No difference between two Full Service models	Not evaluated	Professional/consumer parapro model highest. Combined data from all 3 groups showed increase.	No difference between 2 Broker models. No increase over time (baseline, one year, two year) for either model.	No difference between two Broker models. Overall <i>family</i> satisfaction	Broker model with consumer paraprofessional resulted in less satisfaction than Broker non-consumer parapro.

TABLE 4

Number of Studies Rating Full Service, Hybrid and Broker Paraprofessional Programs as Effective, Mixed or Not Effective on Eight Outcome Measures

	<i>Full Service</i>			<i>Hybrid</i>			<i>Broker</i>		
	<i>Effective</i>	<i>Mixed</i>	<i>Not Effective</i>	<i>Effective</i>	<i>Mixed</i>	<i>Not Effective</i>	<i>Effective</i>	<i>Mixed</i>	<i>Not Effective</i>
Increased Retention/ Compliance	1	0	0	1	0	0	0	0	2
Reduced Hospital Days	1	0	0	0	0	0	1	0	0
Increased QOL	0	0	0	1	0	0	1	0	0
Increased LOF	0	0	1	1	0	0	0	0	2
Reduced Community Services	1	0	1	0	0	0	1	0	1
Reduced Costs	0	0	0	0	0	0	0	0	0
Reduced Symptoms	1	0	0	0	0	0	0	0	3
Increased or High Satisfaction	1	0	0	1	0	0	1	0	4

ment but there was some promising research. The study that best capitalized on the unique abilities of indigenous paraprofessionals (Edmunson et al., 1983) showed a reduction in both hospital days and use mental health aftercare, a unique and positive finding.

Few studies have evaluated paraprofessional models of case management. It appears that use of paraprofessionals in treatment naturally fosters consumer involvement, empowerment and self-help, features that are believed to add important therapeutic effects. Full service case management is a program that has a natural affinity for paraprofessional supplementation. Creative full service paraprofessional programs should result in improved outcomes, especially in quality of life and reduced use of mental health based social and recreational services.

REFERENCES

- Blanch, A. K., & Surles, R. C. (1994). Case management as a rehabilitation intervention. In J. Bedell (Ed.), *Psychological assessment and treatment of persons with severe mental disorders* (pp. 177–187). Washington, DC: Taylor and Francis.
- Bond, G. R., McGrew, J. H., & Fekete, D. M. (1995). Assertive outreach for frequent users of psychiatric hospitals: A meta-analysis. *Journal of Mental Health Administration, 22*, 4–16.
- Chamberlain, R., & Rapp, C. A. (1991). A decade of case management: A methodological review of outcome research. *Community Mental Health Journal, 27*, 171–188.
- D'Ercole, A., Struening, E., Curtis, J. L., Millman, E. J., & Morris, A. (1997). Effects of diagnosis, demographic characteristics, and case management on rehospitalization. *Psychiatric Services, 48*, 682–688.
- Durlak, J. A. (1979). Comparative effectiveness of paraprofessional and professional helpers. *Psychological Bulletin, 86*, 80–92.
- Edmunson, E. D., Bedell, J. R., & Gordon, R. E. (1983). The Community Network Development Project: Bridging the gap between professional aftercare and self-help. In F. Riesman and A. Gartner (Eds.), *Mental Health and the Self-help Revolution*. New York: Human Services Press.
- Felton, C. J., Stastny, P., Shern, D. L., Blanch, A., Donahue, S. A., Knight, E., & Brown, C. (1995). Consumers as peer specialists on intensive case management teams: Impact on client outcomes. *Psychiatric Services, 46*, 1037–1044.
- Morse, G. A., Calsyn, R. J., Klinkenberg, W. D., Trusty, M. L., Gerber, F., Smith, R., Tempelhoff, B., & Ahmad, L. (1997). An experimental comparison of three types of case management for homeless mentally ill persons. *Psychiatric Services, 48*, 497–503.
- Mueser, K. T., Bond, G. R., Drake, R. E., & Resnick, S. G. (1998). Models of community care for severe mental illness: A review of research on case management. *Schizophrenia Bulletin, 24*, 37–74.
- Olfsen, M. (1990). Assertive community treatment: An evaluation of the experimental evidence. *Hospital and Community Psychiatry, 41*, 634–641.
- Powell, T. J., & Cameron, M. J. (1991). Self-Help research and the public mental health system. *American Journal of Community Psychology, 19*, 797–806.
- Rapp, C. A. (1998). The active ingredients of effective case management: A research synthesis. *Community Mental Health Journal, 34*, 363–380.
- Riesman, F., & Gartner, A. (Eds.), (1983). *Mental Health and the Self-help Revolution*. New York: Human Services Press.
- Rubin, A. (1992). Is case management effective for people with serious mental illness? A research review. *Health and Social Work, 17*, 138–150.
- Schwartz, S. R., Goldman, H. H., & Churgin, S. (1982). Case management for the chronic mentally ill: Models and dimensions. *Hospital and Community Psychiatry, 33*, 1006–1009.

- Scott, J. E., & Dixon, L. B. (1995). Assertive community treatment and case management for schizophrenia. *Schizophrenia Bulletin*, *21*, 657–668.
- Solomon, P. (1992). The efficacy of case management services for severely mentally disabled clients. *Community Mental Health Journal*, *28*, 163–180.
- Solomon, P., & Draine, J. (1995). The efficacy of a consumer case management team: Two year outcomes of a randomized trial. *Journal of Mental Health Administration*, *22*, 135–146.
- Solomon, P., Draine, J. (1994a). Satisfaction with mental health treatment in a randomized trial of consumer case management. *Journal of Nervous and Mental Disease*, *182*, 179–184.
- Solomon, P., & Draine, J. (1994b). Family perceptions of consumers as case managers. *Community Mental Health Journal*, *30*, 165–176.
- Test, M. A. (1992). Training in community living. In R. P. Liberman (Ed.), *Handbook of psychiatric rehabilitation*. New York, NY: Macmillan Publishing Company, pp. 153–170.
- Wolff, N., Helminiak, T. W., Morse, G. A., Calsyn, R. J., Klinkenberg, W. D., & Trusty, M. L. (1997). Cost-effectiveness evaluation of three approaches to case management for homeless mentally ill clients. *American Journal of Psychiatry*, *154*, 341–348.