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A forthcoming chapter to appear in: *Family and Health Care Services*, G.Pereira (Ed.)

The Efficacy and Effectiveness of Family Therapy: A Summary and Progress Report

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## Abstract

This paper provides a summary of efficacy and effectiveness research for family therapy. Section one review efficacy studies for a number of mental health problems and concerns including conduct disorder, substance abuse, depression and a number of other mental health problems. The second section discusses the effectiveness of family therapy in terms of the costs of providing such care. Data was available from four different sources: 1) a large western Health Maintenance Organization with 180,000 subscribers in the local Utah region; 2) the Medicaid system of the entire State of Kansas in the United States; 3) CIGNA Behavioral Health, the behavioral health division of CIGNA, a large US health insurance company with several million subscribers; and a Family Therapy training clinic. Results suggest that family therapy reduces the number of health care visits, especially for high utilizers. These results were also replicated in a graduate student training clinic. Also, studies of two different health care systems (and a cost projection study) suggest that including family therapy as a treatment option does not significantly increase health care costs.

## The Efficacy and Effectiveness of Family Therapy: A Summary and Progress Report

Family therapy is relatively new in the field of mental health treatment. Pioneering work with families of schizophrenic patients in the 1940's and 1950's began the movement and the number of practitioners of this form of psychotherapy has been growing around the world ever since.

Family therapy, which is based on systems theory, owes a great deal of recognition to the work of Gregory Bateson and others at the Mental Research Institute in Palo Alto, California. Bateson set aside the process of focusing on a person's past behavior and the symbolic interpretation of behavior to ascertain why a person is experiencing distress. Instead, they looked at the communication patterns between family members (Napier & Whitaker, 1978). As a result of this pioneering work, cybernetics became an anchor point for systems theory. Cybernetics includes considerations of circularity, structure (hierarchy), homeostasis and feedback, sequences of interaction, and rules including 1<sup>st</sup> and 2<sup>nd</sup> order changes. Bateson also theorized that psychotic behavior would make more sense if viewed in the context of pathological family communication. They hypothesized that patients were not "crazy" in an isolated autonomous way, but rather their behavior was an extension of dysfunctional family environments. From this came the double bind theory. The double bind theory refers to communication messages between family members. These messages should not be confused with a simple contradiction or paradox. Instead, double bind messages are done in an ongoing, important relationship between two or more people, where one message is given along with another that conflict with the first. Additionally, there is no escape for the conflicted person from the situation or relationship.

Finally, the patient becomes confused and responds with bizarre and unpredictable behavior. As a result they are viewed as disturbed or mentally ill.

### Systems theory

Fundamental to systems theory is its definition: a system is the interaction of a group of elements, people, places and things constituting an organic whole. Examples of a system are a plant, a person's immune system, a university, a government and a family. In order for a system to be alive the inclusive parts have to interact creating integrity and balance. Therefore, an action by one part of the system influences another part creating a web of dependency.

A family is systemic in that it includes “(1) a structure and hierarchy, (2) powerful rules of conduct, (3) a set of politics, (4) habitual patterns, (5) a history, (6) influences from the outside, and (7) a tendency to resist change”.

Basic concepts to systems theory, which follow in the footsteps of Bateson's thinking, include three main ideas. First is the concept that a system is greater than the sum of its parts. Second, there is a pull in each system, whether it is a family, business, or school, to maintain integrity and balance through their interactions within themselves. Third is the idea of circularity, meaning that the actions of one part of the family affect the other parts, which in turn change the first part and so on, making the components of a system interdependent.

### *How family therapy is systemic*

Family therapy is systemic in that it utilizes different parts of the system in which the problem is occurring. Rather than depending on one person's experience and point of view to conceptualize or solve problems, family therapy includes brothers, sisters, parents, step-parents and step-siblings, grandparents, aunts, uncles, and cousins. Broader definitions of family therapy

call for utilizing other systems in which the identified client is a part of such as school, work, church and so forth.

To conceptualize how a family is systemic it is important to understand the difference between content versus process. In individual psychotherapy, it is easy to focus on the content of what is being addressed. For example, a clinician might ask, “What did you say to you mother when she disappointed you?” In family therapy, a clinician’s focus must include the process of what is happening between systems members. For example, a systemically oriented therapist might say to a mother, father and daughter in therapy, “I notice that you get really quiet and timid when you try and tell you daughter how she has disappointed you, and that your daughter gets agitated and upset when you bring up your hurt feelings. During which your husband steps in and tries to take the focus off this negative interaction by making jokes or using humor.” The focus is then on the process of the daughter-mother-father interaction, and less on the content of what is being said. What is being said is not as important as how it is being said, to whom it is being said and under what circumstances. Family therapy focuses on process more than content.

#### Research on Family Therapy

Most studies reviewed previously and here are efficacy studies. Efficacy research which emphasizes controlled experimental and clinical trials, under specific conditions and in many ways represents the “gold standard” for establishing the usefulness of a particular treatment approach. However, as Stratton (2002) notes, efficacy studies are only the beginning of the story when considering the advantage of a certain approach to problems. Effectiveness studies also must be conducted, meaning that the controlled studies reviewed for their “efficacy” must be applied in a field or real life setting and tested to see if they are useful in applied settings. As a

result, both efficacy and effectiveness studies will be considered in separate sections of the present chapter.

### Efficacy of Family Therapy

Family Therapy has been shown to be an efficacious form of psychotherapy for a number of mental health disorders and concerns including: affective disorders, alcohol and substance abuse, conduct disorder and delinquency, childhood behavioral and emotional disorders, domestic violence, illness and physical disorders and severe mental illness. The following discussion is a brief overview of what can be obtained in more detail if one wishes more in-depth reviews (e.g. Carr, 2000a, Cottrell & Boston, 2002, Sprenkle, 2002, Stratton, 2005).

#### *Marital Distress*

With high divorce and relationship break-up rates in many nations, marital distress is a pressing problem appearing in clinician's offices. Research on treatments for marital distress has shown efficacy for behavioral marital therapy, emotionally focused couples therapy, insight oriented marital therapy, cognitive marital therapy, and cognitive-behavioral marital therapy combination packaged treatments (Baucom, Shoham, Mueser, Daiuto, & Stickle, 1998; Bray & Jouriles, 1995; Crane, 1996). For example, in one study, a nine-month follow-up demonstrated effects sizes for behavioral marital therapy which ranged from 0.54 to 1.04 meaning that the average couples treated obtain better outcomes at nine months than between 70% and 84% of the non-treatment control groups (Dunn & Schwebel, 1995). There are many other studies which show that family-based approaches are efficacious in treating marital and couple distress problems.

#### *Conduct Disorder*

Conduct disorder, with prevalence rates around 1% to 10% in the general population, has been noted among the most frequently diagnosed conditions in both inpatient and outpatient mental health facilities (American Psychiatric Association [APA], 2000). The efficacy of family therapy in treating conduct disorders has been repeatedly demonstrated (Cottrell & Boston, 2002). Empirically supported treatments include (1) Functional Family Therapy (FFT), (2) Multisystemic Therapy (MST), and (3) Oregon Treatment Foster Care (OTFC) (Henggeler & Sheidow, 2002).

For nearly 30 years FFT has been utilized in treating conduct disordered youth and their families (Henggeler & Sheidow, 2002) and has a treatment manual (Alexander et al., 1998). Alexander and Parsons (1973) found that FFT demonstrated a 50% lower recidivism rate than other treatments when treating conduct disorder. These findings have been replicated in more recent studies (e.g. Alexander & Sexton, 2002). Drawing on a more disadvantaged and severely offending population of youth FFT demonstrated an 11% recidivism rate compared to 67% for controls receiving no treatment (Gordon, Arbuthnot, Gustafson, & McGreen, 1988).

With a 25 year treatment developmental history (Henggeler & Sheidow, 2002), MST has also shown impressive results, with intervention techniques described in a treatment manual (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). Six studies have demonstrated the efficacy of MST over control groups. Treatment effects include improved school attendance, increased family functioning and relationships, decreased psychiatric symptoms, and reduction of substance use (Henggeler & Sheidow, 2002).

Also delineated in a treatment manual (Chamberlain & Mihalic, 1998) OTFC has shown positive results. The first study completed included 16 youth aged 13 to 18 with a matched control group. The OTFC treated youth were less likely to leave the treatment setting

prematurely, more likely to complete treatment and incurred fewer days incarcerated at a 2-year follow-up (Chamberlain, 1990). In the second study, a group of 79 male youths aged 12 to 17 were shown to be less likely to run from treatment and more likely to complete it, accumulated less days in detention facilities, tallied fewer criminal offenses, and spent more days with biological parents at the one-year follow-up (Chamberlain & Reid, 1998).

### *Substance Abuse*

In 2004, 19.1 million Americans (7.9% of population) reported current drug use, and almost half (50.3%) of Americans 12 years old and older reported current alcohol use. Of the alcohol users, 22.8% were binge drinkers (five or more drinks during one occasion in the past 30 days) and 6.9 % were heavy drinkers (five or more drinks during five different occasions in the past 30 days). In 2004, a staggering 22.5 million Americans (9.4% of the population) aged 12 and older were classified with substance abuse or dependence disorders (Substance Abuse and Mental Health Services Administration, 2005). Similar findings of substance abuse and resulting effects have been shown for other countries as well (e.g., Haasen, C., et al., 2004; Ramstedt, M., 2002).

*Adolescent drug abuse treatment.* Waldron (1997) stated in a literature review that family therapy has emerged as the superior treatment when treating adolescents for substance abuse. Santisteban et al.'s (1996) family therapy and engagement method using a strategic-structural approach boasted an 81% engagement rate compared to a 62% engagement rate for adolescent group therapy. Others have found impressive engagement rates for family-based approaches over control conditions as well (Donohue et al., 1998).

Once an adolescent enters treatment family-based approaches have been shown effective in retaining and helping them to complete treatment. One MST study reported a 98% completion

rate for adolescents in treatment (Henggeler, Pickrel, Brondino, & Crouch, 1996). Henggeler, Clingempeel, Brondino, and Pickrel (2002) found that MST had a 55% abstinence rate at a four-year follow-up when compared with a 28% abstinence rate for usual services offered. Drug use by adolescents treated with Multidimensional Family Therapy in one study continued to decline during the 12 months after discharge compared to a leveling off effect for an individual cognitive based approach (Liddle, 2002).

Stanton and Shadish (1997) completed a meta-analysis of family-based interventions for both adolescent and adult users involving 15 studies through 1997. Findings demonstrated that positive results for family-based adolescent treatments were significantly different than non-family-based approaches ( $d = 0.39$ ,  $p < .01$ ) meaning that the differences did not happen merely by chance, but rather that the different type of treatments accounted for differences in outcomes. They report that family-based treatments were more effective than individual therapy, peer group therapy and family psychoeducation in reducing drug use.

*Adult drug abuse treatment.* Adult treatment has proven to be just as efficacious as adolescent treatment (Stanton & Shadish, 1997). Among the most promising treatments for this problem is Behavioral Couple's Therapy (BCT). When considering the mean percent of days abstinent at a one-year follow-up, Fals-Stewart, O'Farrell and Birchler (1997) found that BCT (73.2 days) did better than individual treatment (65.1). Fals-Stewart, Birchler and O'Farrell (1996) found that BCT was a more efficacious treatment when compared to individual treatment on effects for relationship outcomes, days of drug use, length of abstinence, and drug-related arrests and hospitalizations. Not only do parents benefit from BCT but it has been shown that children's behavioral functioning improves more after their drug using fathers complete BCT,

than if they were to complete individual behavioral therapy or psychoeducational attention control treatment (Kelley & Fals-Stewart, 2002).

*Alcohol abuse.* Family-based alcohol treatment has shown to be efficacious in several areas. First, family-based treatments have shown 57-86% engagement rates compared to the 0-31% engagement rates for other treatment types (Edwards & Steinglass, 1995). Specifically the Community Reinforcement and Family Training Approach has boasted a 64% engagement rate compared to 22% for the Johnson Institute Intervention and Al-Anon's 14% engagement rate. Second, when considering effective treatment delivery Carr (2000b) states that the two most effective packages for treatment are the community reinforcement approach and behavioral marital therapy. Also, BCT has had extensive research conducted concluding that it is an effective form of treatment. Third, family-based treatments have shown to be more effective than individual treatments when considering relapse prevention (Edwards & Steinglass, 1995). The evidence for efficacious treatments is clear and decisive.

#### *Childhood Behavioral and Emotional Disorders*

The treatment of children with behavioral or emotional problems with family-based interventions has shown considerable efficacy (Estrada & Pinsof, 1995). Estrada and Pinsof (1995) state that the inclusion of parents in a child's treatment produces better outcomes for both parents and children than if the parents were not participating. Carr (2000a), in an extensive review of the literature, concluded that there is evidence that family-based approaches are efficacious for children who have been physically abused or neglected, who have conduct disorder problems, problems with attention or activity, drug use problems, anxiety, depression and/or grief problems and psychosomatic problems.

Family-based interventions have shown efficacy for anxiety-related disorders such as darkness phobia, school phobia, generalized anxiety, and obsessive compulsive disorders (Carr, 2000a). Family therapy has also demonstrated efficacy for treating anorexia nervosa in adolescents (Eisler, leGrange, & Asen, 2002). In many of these studies family-based interventions were compared to different control groups, one of which being individual treatment, and fared better in outcomes.

With attention deficit/hyperactivity disorder prevalence rates ranging from 3%-7% in school aged children (APA, 2000) an effective treatment is necessary. Hinshaw, Klein, and Abikoff (1998) and have concluded that the most efficacious interventions for attention and hyperactivity problems are family-based multimodal treatments. These types of programs typically include using drugs/medicine along with family therapy and or parent training (Carr, 2000a). Treating parents or teaching them how to interact with their children is just as important as treating their children.

### *Affective Disorders*

The lifetime prevalence rates for major depressive disorder are around 14-18% (APA, 1994). Behavioral marital therapy has been shown in a number of studies to decreasing depressive symptoms of up to 50% of the cases examined, and also to delay relapse (Baucom, et. al., 1998). Conjoint interpersonal therapy has also been shown to be efficacious for treating a depressed partner (Foley, Rounsaville, Weissman, Sholomaskas, & Chevron, 1990). Consistent in three different studies (Beach & O'Leary, 1992; Emanuels-Zuurveen & Emmelkamp, 1996; Jacobson, Dobson, Fruzzetti, Schmaling, & Salusky, 1991) when compared to individual therapy, behavioral marital therapy yielded similar outcomes when measuring depression post treatment, but when measuring marital outcomes, behavioral marital therapy fared better.

O'Leary (1990) also found that when a spouse has a depressive episode after marital discord the best treatment for them was marital therapy when compared with cognitive therapy. Not only did marital satisfaction improve, but marital satisfaction reportedly decreased for wives when they received cognitive therapy for a depressive problem. Given that marital discord is highly predictive of depression, it is important to treat the family unit or spousal unit in order to produce the best outcomes.

### *Physical Disorders*

Keicolt-Glaser and Glaser (2001) found in their literature review that emotional support by others was the best indicator of a person's physical health. Also, they stated that the marital status of those they studied was an indicator of their mortality, mortality from a specific illness and morbidity rates. Researchers have also found that family criticism was a strong predictor of relapse for asthma, weight management, high blood pressure, depression, schizophrenia, smoking, and migraine headaches. Most of which have some evidence in research for the efficacy of family-based approaches of treatment (Campbell, 2006). In addition, a number of efficacious treatments have been created for treating physical conditions including rheumatoid arthritis (Radojevic, Nicassio, & Weismann, 1992) and osteoarthritic knee pain (Keefe, Murray, & Caldwell, 1996). Furthermore, Ewart, Taylor, Kraemer and Agras (1984) found that couples skills training reduced systolic blood pressure for individuals suffering from this type of problem. These studies and many others all point in the direction of family involvement. When the family is included in treatment, positive outcomes increase and individuals are healthier.

### *Meta-analysis*

Early meta-analytic studies concluded that family therapy was an effective form of treatment. Specifically, Hazelrigg, Cooper, and Borduin (1987) reviewed 20 studies and found

that family therapy had a positive effect after treatment with a mean effect size of Cohen's  $d = 0.50$  versus a control/no-treatment group, and a Cohen's  $d = 0.65$  versus different treatment groups. Another meta-analysis (Shadish et al., 1993) which included studies that utilized a random assignment and distressed patients demonstrated a positive effect size of  $d = 0.51$ .

Shadish and Baldwin (2003) completed a study of 20 meta-analyses of couples and family therapy, creating a meta-meta-analysis. They concluded that marriage and family therapy is an empirically supported treatment option for both specific and a broad range of problems. Specifically that (1) marriage and family therapy treatments are efficacious when compared to no treatment, (2) that these treatments are as efficacious, if not more, than other interventions such as individual therapy, and (3) there is little difference in efficacy when comparing different approaches within the marriage and family discipline.

It is no question that family-based treatments are efficacious in treating a wide range of diagnoses. But are these efficacious family-based treatments competitive when considering costs? And, how do these costs influence treatment dissemination in a health care setting?

#### Effectiveness of Family Therapy

As demonstrated above, family therapy has been shown to be an effective form of psychotherapy for a number of mental health disorders and concerns. However, efficacy research which emphasizes controlled experimental and clinical trials, under specific conditions, does not adequately address the effectiveness of family therapy in real world situations. While treatments that are found to be effective in the lab, under ideal and carefully controlled conditions, may reveal powerful effects, the replication of the same treatments in applied settings is more difficult. Additionally, there are few known studies on the costs of providing family therapy in real life conditions.

Although the efficacy evidence base for family therapy is good, very few studies have been done that address the issue of the costs of including this service as a treatment option in health care and mental health care systems. In an effort to address this issue, a number of effectiveness studies have been done to investigate the economic impact of using family therapy in existing health care systems (e.g., Crane, Hillin, & Jakubowski, 2005, Law, & Crane, 2000, Law, Crane, & Berge, 2003). Effectiveness research is concerned with the effect of real services to real people by real practitioners. In other words, the effect of mental health services conducted under the same conditions in which most therapy is provided in every-day practice.

The advantage of effectiveness studies is that real people, under real service conditions, are the topic of interest. The main disadvantages of these types of studies are that they are inherently difficult to control since they must investigate conditions as they naturally exist and very little experimental control is possible. In addition, because of the difficulty in establishing experimental control, causality and cause-and-effect relationships cannot be established. Interpretations, therefore, must be cautious and discuss associations and relationships between variables and not cause and effect.

The data which was used for the effectiveness studies to be discussed come from four sources: 1) a large western United States Health Maintenance Organization (HMO) with 180,000 subscribers in the local Utah region; 2) the Medicaid system of the State of Kansas in the United States (US); 3) CIGNA Behavioral Health, the behavioral health division of CIGNA, a large US health insurance company with several million subscribers; and 4) A family therapy training clinic at a large western university.

#### A. Health Maintenance Organization (HMO)

The first set of studies addressed the possible “medical offset” of marital/couples and

family therapy provided in a large local HMO system. A “medical offset” occurs when people reduce their use of medical services following some type of psychotherapy or behavioral health intervention.

The HMO system which housed the first studies on family therapy medical use offset was typical of many such health care systems in the United States. In this type of system, employers and employees contract with the HMO to provide all of their health and mental health care. The cost of health care is shared by both employers and employees for a fixed price per month. In some ways, the system is quite similar to health care systems found in different parts Europe and Canada. The main similarity is that patients receive all of their health care and mental health care in the same system with a central administration. The main differences in these systems are the mechanisms of payment for health care services. In the present system, patients and employers combine to pay for health care services. In many European health care systems, payments are tax-based and come from various governmental bodies including health care and social service systems with little or any direct payment from patients.

In the present HMO, providers from almost all health and mental health disciplines were employed by the HMO to provide care to those enrolled in the plans. All providers are licensed by the state government to provide health or mental health care in the State in which the care is given.

Data from this HMO, in the form of paper medical charts, was available for all individuals, couples and families who received mental health services. Health care records for the same individuals were collected for six months before, during and after therapy. These studies used outpatient care as the dependent variable. Outpatient visits were defined as medical care for illness, injury, psychotropic medication management, health screening, urgent care,

laboratory work, or x-rays. Emergency room, prescription, and hospitalization data were not available.

Participants were randomly selected from those who had used individual, marital/couple, or family therapy. In order to assure distinct groups for comparison purposes, the ratio of the predominant type of therapy (individual, marital/couple, or family therapy) to other types of therapy needed to be at least 3 : 1.

Five different types of therapy were studied: 1) marital/couples therapy; 2) family therapy identified patient (FTIP) (identified as the “reason” the family is seeking therapy); 3) family therapy other patient (FTOP) (participants in family therapy who were not the identified patient); 4) those who received individual therapy; and 5) a comparison group of HMO subscribers who had not received any form of psychotherapy.

Study one (Law & Crane, 2000):

In this study, the medical utilization rates of randomly selected groups who received different types of therapy were compared for six months before therapy, six months after therapy began and at one year after therapy. Results suggest that family therapy was associated with a significant decrease in health care use at one year after therapy began. Overall, marital/couple and family therapy participants reduced their health care use 21% after therapy. Another interesting finding (although not statistically significant) was the 30% decrease in health care use for FTOP patients. These family therapy participants who were not the identified patient showed substantial decreases in their health care use. Obviously, further research in regarding this possible outcome needs to be conducted.

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Study two (Law, Crane & Berge, 2003):

“High Utilizers” (n = 65) defined as four or more medical visits in the 6-month period were selected from the study one sample. Analysis of the health care use rates of these individuals was unable to differentiate chronic health conditions from those who might be experiencing some form of somaticization of their emotional concerns. Consequently, the results undoubtedly contain persons with both types of concerns.

Results when comparing pre and one year follow-up health care utilization rates for high utilizers demonstrate dramatic decreases in health care use for all types of therapy with decreases in health care use ranging from 48% for individual therapy participants to 57% for family therapy “other” patient involved in family therapy. In addition, reductions for recipients of couples therapy and family therapy as the identified patient were both 50%. Further research should be done that focuses on this type of health care consumer.

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Study three (Crane, Wood, Law, & Schaalje, 2004) explored the role of professional discipline, age, amount of experience, and gender of therapists in producing a medical offset. The results of logistic regression analysis suggested that psychotherapy in general, rather than professional training or therapist characteristics is responsible for reductions in health care

utilization. In other words, all providers regardless of training, age, gender of experience level produced the same amount of medical use offset.

Study four (Crane & Christenson, in review), sought to further investigate the “offset effect” by breaking down the dependent variable into different types of outpatient care. In order to assess a “stress” hypothesis, this study considered specific areas of outpatient care separately. A health care visit was classified as “urgent care” when the service was not part of a regularly scheduled care, nor was it an emergency. Urgent care can have been for common illnesses and/or sudden crises in the system that could prompt help seeking.

Urgent care visits showed a significant 47% reduction from pre- to post-intervention time periods, with such changes evident for subjects who attended marital and family therapy. Health care use reductions were more prominent for high utilizers and were found across a number of different types of outpatient care. With high utilizers, those who participated in MFT showed significant reductions of 68% for health screening visits, 38% for illness visits, 56% for laboratory/x-ray visits, and 78% for urgent care visits. These results suggest that families and individuals use urgent care services more before therapy than after, possibly as a response to stress in the family system (pre-treatment) that have been ameliorated (post-treatment).

Overall, data from this HMO suggests that MFT treatments reduce health care use in general with very large reductions for high utilizers of health care.

#### B. Medicaid system in the State of Kansas

The second naturally occurring health care system available for study used data from the Medicaid system of the State of Kansas. Medicaid is a federally funded health care system for poor children and some adults with disabilities. It is the largest single health care provider for children in the United States and is administered separately by each state.

The first study was focused on conduct disordered youth Study one (Crane, et. al., 2005). Retrospective health care costs data for almost 4,000 multi-ethnic youth diagnosed as “conduct disordered” were identified and tracked over a 30 month period. The total costs of all health care (including mental health care) were available for analysis.

Data was available for 3753 youth. Overall, 3086 youth received care that included individual therapy (and no family therapy), 503 received in-home family therapy and 164 others received in-office family therapy. Health care costs for a period of two and one half years after therapy were available for analysis.

The largest group (N = 3,086) received a variety of services, but no family therapy. In this group, 81% were male, 19% female with an average age of 14.4 years (range 5–18). Ethnically, they were 73% Caucasian, 18% African-American, 7% Hispanic, and 1% Native American and Asian youth.

The next largest group (N = 503) were individuals who received a wide range of services but who uniquely, also received family therapy as an in-home service. For these youth, the mean age was 14.7 (range 5–18) with 91% males and 9 % female. Ethnically, there were roughly 21% African American, and 79 % Caucasian.

The third group were youth (N = 164) who received a range of services similar to those received for all youth, but who uniquely, also received in-office family therapy as part of their treatment. Those who received in-office family therapy included more males (84%) and fewer females (16%), but were essentially the same in average age (14.2 years, range 7–18) than the no family therapy group. Ethnicity included Caucasians (68%), African-Americans (28%), and fewer Hispanics (4%) with no Native American or Asian youth. There were no statistically significant differences between the demographic descriptions of the youth in the three groups.

The average cost of health care for youth receiving no family therapy was \$16,260.

For those receiving in-office family therapy, the average cost was \$11,116. Youth who received in-office family therapy received \$5,144 (32%) less care on average than those receiving only individual therapy. Those who received in-home family therapy averaged \$1,622 over the follow-up the period. Those who received in-home family therapy were least expensive of all, averaging at least 85% less than any form of in-office therapy and 90% less than those who had no family therapy.

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The second study addressed the costs of treating adults with schizophrenia (Christenson, Crane & Hillin, in review). Past research has shown that family intervention with schizophrenic patients are effective when included as a component of treatment. Despite a number of studies investigating the effect of pharmacotherapy on costs, there has been little attention given to the effect of family intervention on health care costs. In this study, data from the Kansas Medicaid systems was used to test two structural models of health care costs for 164 patients with schizophrenia who had participated in family intervention. The results showed that a model which included direct and indirect effects of family intervention provided the best fit to the data. The results also provided support for the hypothesis that family intervention is associated with a decrease in overall health care costs. Specifically, each family therapy intervention was associated with a significant \$586 decrease in total health care costs. Interestingly, the provision of other psychotherapy treatments increased costs. For each psychotherapy treatment delivered

(other than family intervention), hospital costs increased a significant \$99. In terms of overall medical costs, each “other” psychotherapy treatment service was associated with an increase of \$77 in overall health care costs.

Results from the Medicaid system data suggest that including family therapy in the treatment program for adolescents does not increase the costs of health care. Surprisingly, in-home family therapy was associated with youth who used fewer medical services than either of the other two groups. In-office family therapy was least common, but also was associated lower health care costs than youth who did not experience any form of family therapy.

In the second study, results suggest that family involvement does not increase total health care costs. Indeed, there may be a reduction in total health care costs when families are involved in care.

C. CIGNA Behavioral Health, the behavioral health division of a large national US health insurance company with several million subscribers.

Psychotherapy costs data for all billed mental health disorders over a four year period were extracted. In all over 600,000 individual psychotherapy bills were available for analysis. Preliminary results suggest that across all mental disorders and diagnoses, persons who received family or couples’ treatment required an average of 37% less psychotherapy than those who received individual therapy (Prohofsky, 2005).

D. Medicare Cost Projection study.

In addition to direct studies of health care organizations, a specific cost projection of including family therapists in a large national health service (Medicare) was conducted (Christenson & Crane, 2004). Although not projection of adding a service, it focused on the cost of adding a specific group of new providers to an existing health care system.

Medicare is a large national provider of health care services in the United States.

Beneficiaries are approximately 43 million senior adults and disabled adults. Medicare provides a comprehensive range of medical and mental health services.

This study sought to estimate the cost of adding approximately 39,000 independently licensed Marriage and Family Therapists to panels of mental health providers. Historical trends were determined using psychotherapy cost and use data for the years 1999 through 2001 and projections for the years 2002 through 2006 were made with marriage and family therapists included as providers. The estimated net increase in cost due to adding MFT's was \$2.1 million per year for the entire USA, less than one-tenth of 1 % of Medicare mental health budget. This amount is well within measurement error and thus constitutes a nonsignificant potential increase in Medicare expenditures.

#### E. Family Therapy Training Clinic

This clinic is housed at Brigham Young University and provides approximately 10,000 hours of low cost individual, group, marital/couple and family therapy each year. Therapists are students in masters and doctoral programs in marriage and family therapy, clinical psychology and social work. For the purposes of the present discussion, only clients seen by family therapy trainees are included.

Health care use data was collected at three times. First, at the beginning of therapy, second six months after therapy began and finally at one year after the beginning of therapy. Data was taken from two different sources. First the self reports of family members, and their reports of their spouses' and oldest child's health care use. Second, the number and type of health care visits was also obtained from the medical charts of participants provided by their primary care physician.

Study one (Christenson, Crane, Marshall, & Schaalje, in preparation), investigated the influence of therapist experience level in producing an offset effect for persons receiving marital/couple or family therapy services. The number of self reported health care visits before and at one year after the beginning therapy was compared (N = 112). Results demonstrate a 37% decrease in health care use when comparing health care use before and after treatment.

Study two (Jakubowski, Crane, & Christenson, in preparation), focused on the basic research issue of self reported medical use versus chart reviews of medical records. In other words, are the self reports and reports about other family members significantly correlated, to the degree that self and family reports could eliminate the need for chart reviews when doing family based research?

For self reports, the number of self-reported health care visits was significantly related to medical charts ( $r = .541, p < .001, n = 147$ ). In addition, spousal reports on their partner's medical use, was significantly positively correlated with medical records ( $r = .665, p < .001, n = 149$ ). Finally, parents' reports of their children's medical use was significantly positively correlated with medical records ( $r = .703, p < .001, n = 42$ ).

Overall, treatment provided by family therapy trainees was associated with decreased health care use at a level at least as high as that provided by professional therapists. In addition, self report and family reports of health care use are good substitutes for hand review of medical charts.

#### Summary and Conclusions:

The efficacy and effectiveness research related to family therapy has demonstrated good experimental outcomes. In addition, reductions in health care use have been documented, especially for high utilizers of health care after participating in family therapy. Also, including

family therapy in health care programs does not seem to increase overall health care costs. If these results are replicated in additional studies, health care managers may wish to allow family therapy to be provided to those who request such service, or who may benefit from this form of therapy.

There are, of course, a number of limitations to the effectiveness research presented here. First, cause-and-effect relationships cannot be established, only true experimental designs can establish such relationships. Fortunately the efficacy research presented has demonstrated cause and effect relationships for experimental forms of couples and family therapy.

Second, for the effectiveness research, direct comparisons between groups who received different forms of therapy, or received treatment from different providers are not appropriate. There are undoubtedly pre-existing differences between persons and families who received different forms of treatment, and from different providers. However, these results are interesting and suggestive of effectiveness when family therapy is applied to different real world situations and that costs probably will not be accelerated.

In terms of the efficacy research, experimental design with random assignment to groups makes direct comparisons possible. In most cases, family therapy has produced results better than no treatment control groups and results as good as, if not better than, other forms of psychotherapy.

#### Clinical Implications:

The main implications for clinicians are related to advocacy and policy. Health care policies are set by a number of different types of people acting in different roles. Often, they seek input from senior and other managers, payers, users and respected providers. Policy makers may be interested in the information this research provides, but are less likely to spend time

considering it unless consumers or respected providers bring it to their attention.

One can only imagine the amount of information related to all forms of medical care that policy makers, managers and payers must process on a regular basis. It might be possible, but it is probably unlikely that they are updated regularly on the effectiveness research on the costs of family therapy. It seems that the best mechanism of providing information to influential policy makers can be from providers and users of the service.

Another group of highly influential people who may want to be educated are past users of family therapy services. The purpose is not to exploit families for selfish purposes. Rather, it is to give a “voice” to those whom mental health services policies are designed to benefit. Especially when families have sought, received and benefited from family therapy services that were not provided by their health care plans. Plans that they have helped pay for, either directly through payroll deductions, or indirectly through taxation. It would seem that families should be able to choose to receive family therapy services if they choose, and especially when mental health services are already available in their health care plans.

Clinicians who wish to advocate for the inclusion of family therapy in general can do so themselves. But it is also possible to encourage families they work with to do the same. Certainly such encouragement should occur only after treatment and without using coercive or unethical methods. Policy makers do listen to families who wish to come forward and share their stories.

Also, few large health service provider companies or organizations are able to do quality assurance survey of their subscribers for a service they do not as yet cover. Hence they are unlikely to uncover the value-to users-of family therapy services in their regular quality assurance processes.

In summary, given that family therapy has been shown to be effective in numerous

reviews and that including in health care systems does not seem to increase health care costs, now may be the time to begin to educate policy makers and begin to offer this form of care to families who desire to receive it.

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Table 1 Results when comparing pre and post therapy utilization rates in a HMO:

Type of Therapy	N of subjects	% Change in Health Care
MFT Combined	272	-21.5*
Marital/Couple	52	-21
FTIP	60	-9.5
FTOP	60	-30.5
Individual	60	-10
Comparison group	60	+12.2

\*=  $p < .05$

Table 2 Results when comparing pre and post therapy utilization rates for high utilizers

Type of Therapy	N of subjects	% Change in Health Care
MFT Combined	43	-53*
Marital/couple	15	-50*
FTIP	12	-50*
FTOP	16	-57*
Individual	22	-48*

\*p = < .05

Table 3 Total health care costs for conduct disordered youth

Type of Therapy	N of Subjects	Total Average Health Care Costs
No family therapy	3,086	\$16,260*
In-office family therapy	503	\$11,116*
In-home family therapy	164	\$ 1,622*

\* $p < .01$