

The Family as The Unit of Medical Care

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This review of the literature on the family and medical care involves an expedition into the sister disciplines of epidemiology, sociology, and psychology. There is a considerable volume of evidence that documents how important to the individual's health is his family. This material has been organized into four categories: (1) the family's contribution to the "cause" of disease, (2) the family's contribution to the "cure" of disease, (3) the family's response to serious or chronic disease, and (4) the family's desire and/or need for family-oriented care. In the conclusion, some implications for the future of the discipline of family medicine are discussed in relation to the material presented.

In his teachings and work,¹ Cassel stressed that contemporary medicine in general, and the primary care disciplines in particular, have much to gain from collaboration with epidemiology, sociology, psychology, and even anthropology. These sister disciplines not only possess partial answers to many questions beginning to be asked, but their investigative methods are far more suitable than traditional bench methods for the future expansion of health care services research. The full significance of this advice becomes readily apparent as one explores the literature dealing with the family and medical care.

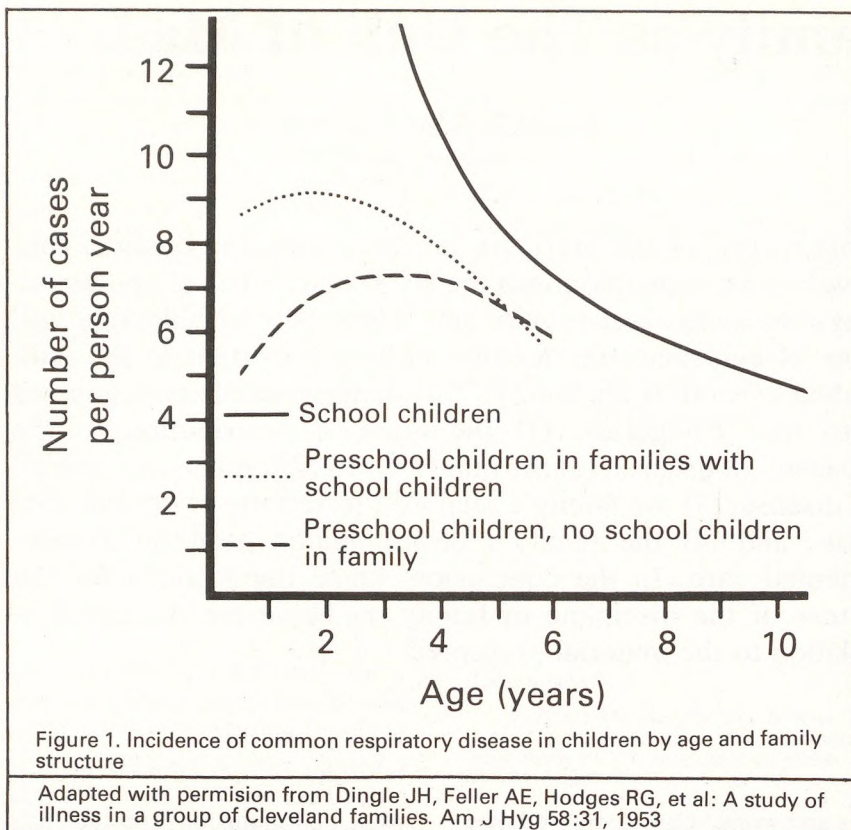
The purpose of this review is to collect objective data that might support the impression that many family physicians develop from practice experience: when providing primary medical care, there seems to be a definite advantage in centering this care about the family unit rather than the isolated individual patient. In other words, knowing

what is "going on" in the family seems to be equally as important as detailing the individual's symptoms. Furthermore, one might explore the hypothesis that medical care is not only more humane, but more effective in terms of outcome and cost if the providers of that care do consider the complex interactions that occur between the individual patient and his/her family. Although there are only sparse data to support the latter hypothesis, there is a considerable volume of evidence that demonstrates how important the family is to the individual's health.

The Family's Contribution to the "Cause" of Disease

The most obvious time at which it is important to consider all members of the family is when that family has within it a contagious disease. The contagious disease about which the physician is frequently consulted is the common upper respiratory tract infection. The precise understanding of the relationship between this contagious disease and various family members is found in a work that was published in 1964. Dingle et al² followed

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over 60 families for a three-year period. These families were selected for stability in the community and intellectual cooperation. They tended to be highly educated, to own their own homes, and to have comfortable incomes. The mothers kept daily diaries. Project physicians evaluated all reported illnesses. In addition, a fieldworker visited the home weekly. It was demonstrated that the cumulative incidence of common respiratory disease varied according to family relationship. As a group, preschool children had eight episodes per year, school children six to seven, mothers five, and fathers less than four. A more detailed analysis showed the highest incidence in the three and four-year olds as they began school, with up to 12 episodes per year. Furthermore, preschool children in families with school children had a higher rate than preschool children in families without school children. This relationship between the incidence of common respiratory disease and family structure is illustrated in Figure 1. Armed

with this information, the physician can more effectively reassure the distraught mother who is searching for an explanation for why her family seems to be continuously ill.

In the early 1960s, Meyer and Haggerty³ began to realize that more than mere contact with an organism was needed to produce disease. They studied family susceptibility to streptococcal infections. Sixteen families, representing 100 individuals, were followed for a year. Each family had at least two children, with at least one child in school. Throat cultures were taken every three weeks and at times of illness, and sera for antistreptolysin-0 titers were drawn every four months. The group and type of streptococcus and the number of colonies isolated did not play a crucial role in the acquisition of streptococcal infections, illness rates, or immune response. There was no significant relation to family size, sex of the members, or presence or absence of tonsils. As in the Dingle study, mothers became ill more

often than fathers. The factors that were associated with susceptibility to streptococci were age (highest incidence was two to five years), season, closeness of contact (requiring that contacts sleep in the same room), and acute or chronic family stress. Thirty-seven percent of all streptococcal illnesses were associated with a form of acute stress. These were major events such as the loss of a family member, a serious illness in the family, a minor illness with serious implications, or a family crisis of a nonmedical nature. The families were also grouped according to an assessment of the level of chronic stress. As the level of chronic family stress increased from low to medium to high, there was a steady increase in the number of streptococcal acquisitions, illnesses, and antibody rises. Furthermore, once an individual acquired the streptococci, his chances of having an antistreptolysin-0 titer rise depended on the level of stress in the family. There was an immune response in only 21 percent of the cases from low-stressed families, but in 49 percent of the patients from moderately to highly stressed families.

Psychosocial factors within the family have an effect on a wide variety of noncontagious medical problems. Nesor⁴ studied the fragmentation of black families and their stroke susceptibility. The degree of social disruption was assessed in each county in North Carolina by factors such as divorce or separation, children living with one parent, children living with neither parent, illegitimate births, and the number of males sentenced to prison.⁵ The stroke morbidity data for blacks, as reported on death certificates over a nine-year period, were also analyzed by counties. As the level of disorganization increased, the mortality ratio increased. This was best demonstrated in the black males aged 35 to 44 years, in whom there was an almost threefold increase in mortality as the level of disorganization increased from least to most (Table 1). This work clearly links a form of social pathology, family fragmentation, with a form of physical pathology, stroke fatality.

Cassel's basic formulation, that disease develops during times of stress in those individuals with little or no support, is well illustrated in a study of pregnancy.⁶ A large number of women were followed during pregnancy for the development of standard complications. Their current level of stress was assessed by a life change scale. Their

Table 1. Stroke Mortality by County Index of Social Disorganization in the Black Population, North Carolina, 1956-1964 (Ages 35-44, Males)

| | |
|---|-----------|
| Average annual mortality rate (per 100,000 all counties) | 84 |
| Mortality ratio by index of social disorganization* | |
| 1 | 100 |
| 2 | 178 |
| 3 | 192 |
| 4 | 218 |
| 5 | 290 |
| * Ascending order of amount of social disorganization, Counties grouped at level 1 have the least amount of disorganization. Adapted with permission from Nesor WB: Fragmentation of black families and stroke susceptibility. In Kaplan BH, Cassel JC (eds) : Family and Health. Chapel Hill, NC, Institute for Research in Social Science, 1975 | |

psychosocial assets were evaluated by looking at individual strengths, marriage strengths, and extended family and community supports. Taken individually, there was no correlation between stress or support and complications. But, when there was the combination of high stress and low support, the complication rate was over 90 percent.

Parental deprivation, another form of family fragmentation, has been shown repeatedly to be associated with three psychiatric problems: sociopathic personality disorder, suicide, and depression. Two English psychiatrists⁷ selected from their 1,400 patients 100 cases in which there was a history of at least a six-month separation from the mother during the first six years of life. A control group was matched for age and sex from the other 1,300 patients they had seen. In the deprivation cases, there were 27 patients with the diagnosis of sociopathic personality compared to four patients in the control group. This difference is statistically significant.

Bowlby⁸ looked at three groups of individuals: patients who were hospitalized for attempted

Table 2. Average Annual Death Rates for Selected Cases in the Married and The Widowed, for the 25-to-35 Age Group, by Sex, United States 1949-1951
Deaths rates per 100,000 population in each specified group

| Cause | Sex | Married | Widowed | Widowed-Married |
|--|-----|---------|---------|-----------------|
| Tuberculosis | M | 11.2 | 141.8 | 12.7 |
| | F | 15.4 | 76.1 | 4.9 |
| Vascular lesions of the central nervous system | M | 3.6 | 29.3 | 8.1 |
| | F | 4.1 | 17.4 | 4.2 |
| Hypertension with heart disease | M | 1.7 | 18.3 | 10.8 |
| | F | 2.3 | 10.9 | 4.7 |
| Influenza and pneumonia | M | 2.6 | 20.1 | 7.7 |
| | F | 2.7 | 13.4 | 5.0 |
| Arteriosclerotic heart disease | M | 8.6 | 42.1 | 4.9 |
| | F | 2.8 | 16.5 | 5.9 |

Adapted with permission from Kraus A, Lilienfeld A: Some epidemiologic aspects of the high mortality rate in the young widowed group. *J Chron Dis* 10: 207, 1959

suicide, nonsuicidal psychiatric patients, and nonpsychiatric patients. He tabulated the incidence of loss or continuous absence of one or both natural parents for at least 12 months before the 15th birthday. The suicide group had a higher incidence of such a loss than both control groups at all ages. This greater incidence was most pronounced in the zero to four-year age group, in which the suicide group had a threefold greater history of deprivation.

The data on depression⁸ provide a slight variation on this theme. Deprivation tends to lead to depression if the original loss was the parent of the opposite sex, if this loss occurred between the tenth and 15 years, and if this loss was from death rather than other forms of separation.

Spitz⁹ provides more impressive data in a prospective study of the effects of maternal deprivation. A large number of infants from diverse socioeconomic backgrounds were examined and given a developmental quotient at the end of the first year of life. This development quotient is similar to the intelligence quotient, but takes into account both mental and physical factors. As long as the mother

was present, the development quotient remained relatively constant over the year. There was a group of 60 infants who were taken from their mother and placed in an institution. During the year, the average development quotient for this group fell from 124 to 72. At the end of the second year, this had fallen to 42, which represents frank retardation.

Childhood is not the only period when the human organism is rendered more vulnerable by the loss of a significant other. Kraus and Lilienfeld¹⁰ tabulated mortality figures in the United States according to whether or not the individual had been married or widowed at the time of death. The causes of death were varied and included tuberculosis, malignant neoplasms, heart disease, generalized arteriosclerosis, accidents, and suicides. The most striking differences were seen in the 24 to 34-year age group. The widower group had a death rate 12 times greater than the married group from tuberculosis, eight times greater from vascular lesions of the central nervous system, ten times greater from hypertension with heart disease, and eight times greater from influenza and pneumonia.

Table 3. Angina Pectoris Incidence (1963-1968) as Related to Psychosocial Factors in 1963

| Psychosocial Area | Severity Score* | Number of Subjects | Number of Cases | Age Area-Adjusted Rate/1,000 |
|-------------------|-----------------|--------------------|-----------------|------------------------------|
| Family problems | 0(least) | 1,636 | 50 | 31 |
| | 1 | 3,972 | 125 | 33 |
| | 2 | 1,836 | 68 | 38 |
| | 3 | 865 | 41 | 49 |
| | 4(most) | 219 | 16 | 88 |

* Severity Score: A score indicating the number of times a subject reported serious or very serious problems in respect to questions within the psychosocial area (eg, 0=no serious problems 3=a serious problem in each of the three questions related to the relevant problem area).
Adapted with permission from Medalie JH, Snyder M, Groen JJ, et al: Angina pectoris among 10,000 men: 5-year incidence and univariate analysis. *Am J Med* 55: 583, 1973

In every instance, the male appeared to be more vulnerable to the loss than the female. The loss of a wife was associated with a fivefold increased risk of death from arteriosclerotic heart disease (Table 2).

Medalie¹¹ looked at arteriosclerotic heart disease in more detail in his study of 10,000 men in Israel. As in the American Framingham¹² study, the major risk factors included hypertension, elevated cholesterol, and cigarette smoking. Unlike the Framingham study, there was an attempt to assess in some detail the effect of psychosocial factors. These psychosocial factors, when subjected to univariate analysis, equalled hypertension and cholesterol levels and surpassed cigarette smoking as predictors for the development of angina pectoris. This finding persisted in a multivariate analysis.¹³ At the beginning of the study, there was an assessment of the severity of one's problems in the areas of family, work, and finance. The age-adjusted rates for the development of angina pectoris over the next five years increased as the severity of the problems increased. In the area of family problems, there was nearly a threefold increase in the incidence of angina in those with

the most severe problems as compared with the least severe (Table 3).

Another study related to arteriosclerotic heart disease suggests that fathers with Type A personalities tend to raise sons who can be shown to have Type A personalities by the age of 15 years.¹⁴

It is generally known that the family strongly influences whether or not a symptom is taken to the physician. The ratio of medically nonattended symptoms to medically attended symptoms was 7:1.¹⁵ At the first sign of possible illness, the married man turned to his wife for advice¹⁶ and three quarters of a sample of women discussed medical treatment with their husbands.¹⁷ In the average US home, there were 17.2 nonprescribed and 5.3 prescribed medications.¹⁸ Three out of ten persons reported that the idea of using a nonprescribed medicine came from a family member.¹⁹

Roughmann and Haggerty²⁰ confirmed the common impression that families overutilize health care services during periods of stress. A surprising finding was that while mothers tend to overutilize services for their children during times of stress, they underutilize these services for themselves.

Finally, Mechanic²¹ documented what every practitioner suspected. Mothers who perceive life as stressful or experience dissatisfaction in their family relationships are preoccupied with their own symptoms and with their children's symptoms. This leads to increased use of health care services. The sudden increased use of health care services may be a signal for the physician that the family is in trouble.

The Family's Contribution to the "Cure" of Disease

Studies of physical rehabilitation demonstrate that the family can hasten the healing process. Robertson²² looked at 20 stroke victims. Their rate of progress in a rehabilitation program was determined by occupational and physical therapists. The patients and their significant others were asked to complete a questionnaire that dealt with attitudes, both positive and negative, about the disability. They were asked to express their own attitudes and to try to predict the attitudes of the other. Whether or not the patient and his/her spouse shared similar attitudes did not appear to affect the rate of progress. However, the ability to predict the other's attitudes, a measure of shared empathy, did correlate with the rate of progress in the rehabilitative process.

Litman²³ studied 100 patients who suddenly found themselves with a severe orthopedic disability. Their response to physical rehabilitation efforts was graded by the attending physicians, occupational therapists, and physical therapists. Seventy-three percent of those with a "good" response to rehabilitation had been receiving positive reinforcement from the families. Seventy-seven percent of those with a "poor" response did not obtain this encouragement from their families.

Mayer and Myerson²⁴ studied over 300 alcoholics who were followed in a Boston treatment center. Those patients who responded to treatment with a marked reduction or abstinence of drinking were those who had "personality stability." They were married and living with the spouse, they were employed, and they were in good general health. In addition, the change in drinking behavior was associated with improve-

ment of marital relations and job performance. In a study like this, it is difficult to assign cause and effect; nevertheless, it is tempting to conclude that the alcoholic who has some good things going for him at home and on the job has a better chance of responding to treatment efforts.

Noncompliance with a prescribed medical regimen is widespread. Nearly 60 percent of elderly patients are consistently making one or more medication errors.²⁵ One half of these errors are potentially serious. Only 20 percent of disadvantaged city children receive a full ten-day course of penicillin as prescribed,²⁶ and less than 50 percent of the more comfortable middle class children are given medication as prescribed for them.²⁷ The family can help improve the patient's compliance with a medical regimen.

Heinzolmann²⁸ studied a group of sedentary middle-aged men who were at high risk for developing heart disease. It had been recommended that these men take part in a physical conditioning program that required one hour per day, three days per week. If the wife's attitude toward this program was positive, there was an 80 percent chance that the individual would participate. If the wife's attitude was neutral or negative, the chance of participation fell to 40 percent. Patients with rheumatoid arthritis were fitted for a wrist splint and asked to apply this on retiring and wear it through the night. For all socioeconomic classes and for both sexes, the cooperation with this program was related to the family's explicit expectation that the patient would wear the splint.²⁹ Studies of hypertensive patients suggest that having the spouse participate in the medical program enhances compliance with the prescribed treatment and control of the hypertension.³⁰

The Family's Response to Serious or Chronic Disease

In 1952, Parsons and Fox³¹ proposed a conceptualization of the psychological impact of serious illness on the precariously balanced, emotionally highly charged system of the modern urban family. Although their basic scheme has been modified and expanded over the past 25 years, this work was important at the time and remains important to medicine today because it emphasizes that each

member of the family has his own life-situational strains, and that illness offers a type of solution to these strains for the individual, but that this illness solution has its own impact on other family members. For example, the father-husband usually is the primary provider and "scapegoat" or symbolic target for the hostility of the socializing children. The sick role does offer a legitimate respite from occupational demands, but this worsens his position in the family. The wife's focusing her attention on him is at the cost of sacrificing maternal support for the children.

The child-sibling experiences, on his path toward maturity, considerable tension from competition with siblings. The sick role allows regression and provides a distinct advantage over the healthy siblings. A serious illness in a child disturbs the family equilibrium and makes it difficult for the mother to meet the needs of father and siblings. Rivalry becomes acute.

The family's response to diabetes mellitus has been extensively evaluated. A study of wives of diabetic husbands³² suggested that the wife and husband have considerable conflict over the diabetic regimen, the relationship with the husband's physician, and the sexual aspects of marriage. All but one of the wives were unable to relate to the husband's physician in a way which could be constructive. Factors interfering with the wife's ability to relate to the physician were the husband's tendency to secretiveness, the physician's failure to encourage the wife's participation, and the wife's poor self-concept. It is easy for wives and physicians to play into the self-destructive tendencies of diabetic men.

Crain and Sussman have studied the effects that diabetes has on the parents and siblings of diabetic children. They demonstrated that diabetes produces an intrafamilial crisis that leads to less agreement among the parents on how to handle the child, more marital conflict, and a lowered level of marital integration.³³ In addition, the nondiabetic sibling suffers by having a diabetic child in the family. The diabetic has an intimate, expressive relationship with his mother which is manifested by an association between the mother's warmth and control behaviors and the diabetic's academic achievement, self-esteem, and social relationships. As suggested by Parsons and Fox, the sick role gives the diabetic child a special advantage over the normal siblings in the race for growth and

attention and affection.³⁴

The reaction of parents to a fatal or long-term illness in their children has been reviewed.³⁵ The initial response when they learn of the diagnosis may include: (1) shock, (2) anxiety and confusion, (3) denial, (4) rejection of the child, and (5) criticism of the diagnosing physician. Regardless of the objective information provided by the physician, they begin to experience guilt feelings and tend to blame themselves or each other for contributing to the child's condition. The mothers of hemophiliac children perceive rearing as a continuous struggle between life and death, in which they function as the "protector of the child." Fathers are extremely reluctant to interact with their children for fear of an accident and subsequent bleeding. Ambivalence develops that thwarts parenting efforts. Parents of children with long-term or fatal illnesses frequently express a feeling of being excluded from the "normal community."

The presence of a chronic disease in one member of the family may contribute to the development of illness in a second family member. Downes³⁶ studied a large number of families in the eastern health district of Baltimore. He grouped the people into three categories. The first group comprised those individuals in whose family there was no chronic illness. The second group contained those individuals who themselves had no chronic illness, but who came from a family in which there was chronic illness. The third group included those individuals with a chronic illness. As expected, the group with chronic disease was found to have a high incidence of illness. What was not intuitively obvious was the finding that the second group also had a higher incidence of illness, both bed and hospital illness, than the first group (Figure 2).

An increase in somatic symptoms is seen in both the individual with the disease and his or her spouse.³⁷ Furthermore, Downes³⁸ demonstrated that certain chronic diseases—hypertensive vascular disease, total circulatory disease, and arthritis—appeared in both husband and wife at a rate significantly higher than expected. The fact that chronic disease tends to be concentrated among spouses in family units emphasizes the need to consider and study the patient in his social setting with particular attention to the family environment.

- Group 1** Individuals in whose family there was no chronic illness
- Group 2** Individuals who themselves had no chronic illness, but who came from a family in which there was chronic illness
- Group 3** Individuals with a chronic illness

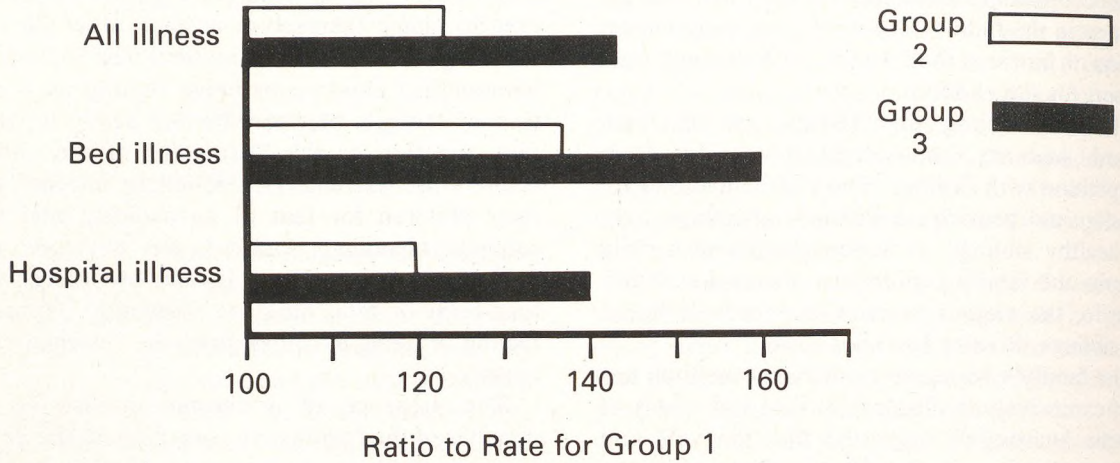


Figure 2. Ratio of the Rate of Illness for Populations of Groups 2 and 3 to the Rate of Group 1

Adapted with permission from Downes J: Illness in the chronic disease family. *Am J Public Health* 32:589, 1942

The Family's Desire and/or Need for Family-Oriented Care

An evaluation of the evidence suggests that when given the option, the American people prefer to have one regular physician who cares for all members of the family. This is true of rural Illinois,³⁹ western Pennsylvania,⁴⁰ Fort Wayne, Indiana,⁴¹ Columbus, Ohio,⁴² and the Minneapolis-St. Paul metropolitan area.⁴³ These studies do not deal with the issue of whether or not this one physician caring for the entire family is truly providing family-centered care. The only study that argues that the public does not want a family physician has so many methodologic problems that its conclusions cannot be considered seriously.⁴⁴

Can one identify the family that needs intensive, family-centered care? An English general practitioner described the "sick family" as the

family that causes the physician a lot of trouble, or the family whose members have many psychosomatic complaints or have exaggerated responses to organic illness.⁴⁵ He noted that in some families the trouble goes on for years, and in other families there is a burst of activity which then seems to settle down. He then identified 100 such "sick families" from his practice, and searched for associated factors. The sick families had the following characteristics in the order ranked: anxiety states in one or both parents, depressive illness in one or both parents, chronic illness in one or more members of the family, marital disharmony, presence of only one child (Table 4). Note how this study echoes many of the themes that have appeared in the earlier sections of this review.

Pless⁴⁶ has developed a short, 16-item, self-administered questionnaire that is completed by both parents. With this he can identify those

| Table 4. Psychosocial Factors Most Frequently Found in 100 'Sick Families' | |
|---|--|
| Psychosocial factor | Number of families having this factor |
| Families with anxiety states in one or both parents | 91 |
| Families with depressive illness in one or both parents | 63 |
| Families with chronic illness in one or more members (including psychiatric illness) | 41 |
| Families with marital disharmony | 38 |
| Families with one child | 32 |
| Adapted with permission from Calling A: The sick family. J R Coll Gen Pract 14: 181, 1964 | |

families that are having troubles. These families would profit from intensive, comprehensive, family-centered care. The categories that are assessed in this questionnaire include marital satisfaction, level of disagreement, communication, and patterns of problem solving (Table 5). In the original paper, a vigorous effort was made to validate the instrument. A follow-up study⁴⁷ showed test-retest reliability over a five-year period. This provides an important element of confidence for this screening instrument.

Conclusion

Whether or not considering the family as the unit of medical care really makes a difference to outcome in the primary care setting remains unresolved. Most family physicians believe that it does make a difference. The studies cited in this review provide concrete examples of the family's influence on the individual's health. In addition, there are other testimonials. The Denver experience suggests that 45 percent of that program's families

required and benefited from family-centered health care.⁴⁸ Those involved with the Yale studies in family health care believe that with this approach complex family health problems that are difficult to cope with in the "traditional" medical care setting are being identified and handled with good results.⁴⁹ The Montefiore Family Health Maintenance Demonstration claims improved health status for its study families compared with control families.⁵⁰ Medalie⁵¹ evaluated the medical care provided by his family and community health center in Israel and made comparisons with the nation as a whole. The infant and standardized mortality rates were lower in the study group. Morbidity, evaluated by the incidence of diphtheria, tuberculosis, and anemia during pregnancy, was also lower. There was a lower hospitalization rate and a shorter average stay in the hospital per patient. These comparisons with the figures for the nation as a whole may merely reflect the difference produced by having individuals attached to any type of health care delivery system. Definitive work that would settle this issue has not yet been

Table 5. Categories of Family Functioning Assessed in the Pless Questionnaire

Marital satisfaction

...feelings you might have about certain aspects of marriage, eg, standard of living, love and affection, companionship
(Scale: 1, pretty disappointed—5, enthusiastic)

Frequency of disagreements

Would you say disagreements in your household come up more often, about the same, or less often than in other families you know?
(Scale: more, same, less)

Happiness

Would you say, all in all, that your family is happier than most others you know, about the same, or less happy?
(Scale: happier, same, less)

Communications

Do you find your spouse an easy person to talk to when something is troubling you?
(Scale: yes, sometimes, no)

Weekends together

What sort of things do you do as a family on the weekends?
(Scale: something, nothing)

Problem solving

...most important problem you as a family had to deal with this last year
...did you discuss this with your spouse?
(Scale: yes, no)

Adapted with permission from Pless IB, Satterwhite BB: A measure of family functioning and its application. *Soc Sci Med* 7: 613, 1973

done. If family-centered care, or family medicine, really makes a difference, one should be able to prove it. This is a major challenge for the future.

For ten years family medicine has been struggling to gain a foothold in the medical establishment. This battle has been fought mainly in the political arena. Except for a few minor skirmishes, the battle is over. Of the 119 US medical schools, 78 have full departments of family medicine, 16 have divisions or sections, and six are actively planning for family medicine programs. In addition, there are many community hospital based residency programs. Family medicine is "in" and now is being challenged to prove its merit.

Many respected leaders in the family medicine movement, such as John Geyman⁵² and Ted Phillips,⁵³ are urging that it is time to divert energies from back-room politicking to scholarly activity.

The validation and extension of the work cited in this review could become part of a unique body of knowledge that will help establish family medicine as an academic discipline. In addition, there are endless other important health care issues that might be addressed. This work can be done by both the full-time faculty and by practicing physicians. In fact, the physician's real-life office is a far better laboratory for these investigations than any teaching practice.

Popular support for family medicine cannot last indefinitely. If family physicians, as a group, do not, in addition to demonstrating clinical competence, establish a firm foundation of new knowledge, they must accept the unpalatable result that family medicine will become a vocational training scheme rather than a respected part of a learned profession.

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References

1. Cassel JC: Psychosocial process and stress: Theoretical formulation. *Int J Health Serv* 4:471, 1974
2. Dingle JH, Badger GF, Jordon WS: Illness in the Home. Cleveland, Ohio, The Press of Case Western Reserve University, 1964
3. Meyer RJ, Haggerty RJ: Streptococcal infections in families: Factors altering individual susceptibility. *Pediatrics* 29:539, 1962
4. Nesor WB: Fragmentation of black families and stroke susceptibility. In Kaplan BH, Cassel JC (eds): *Family and Health*. Chapel Hill, NC, Institute for Research in Social Science, University of North Carolina, 1975
5. Smith H: A Comprehensive Mental Health Plan for North Carolina, vol 1, attachment 3. Raleigh, NC, North Carolina Department of Mental Health, 1965, pp 35ss-35tt
6. Nuckolls K: Life crisis and psychosocial assets: Some clinical implications. In Kaplan BH, Cassel JC (eds): *Family and Health*. Chapel Hill, NC, Institute for Research in Social Science, University of North Carolina, 1975
7. Earle AM, Earle BV: Early maternal deprivation and later psychiatric illness. *Am J Orthopsychiatr* 31:181, 1961
8. Bowlby J: Effects on behaviour of disruption of an affectional bond. *Eugenics Soc Symp* 4:94, 1968
9. Spitz RA, Wolf KM: Anaclitic depression: An inquiry into the genesis of psychiatric conditions in early childhood. *Psychoanal Study Child* 2:313, 1946
10. Kraus AS, Lilienfeld AM: Some epidemiologic aspects of the high mortality rate in the young widowed group. *J Chron Dis* 10:207, 1959
11. Medalie JH, Snyder M, Groen JJ, et al: Angina pectoris among 10,000 men: Five-year incidence and univariate analysis. *Am J Med* 55:583, 1973
12. Kannel WB, McGee D, Gordon T: A generalized cardiovascular risk profile: The Framingham study. *Am J Cardiol* 38:46, 1976
13. Medalie JH, Goldbourt U: Angina pectoris among 10,000 men. *Am J Med* 60:910, 1976
14. Bortner RW, Rosenman RH, Friedman M: Familial similarity in pattern A behavior, fathers and sons. *J Chron Dis* 23:39, 1970
15. Alpert J, Kosa J, Haggerty RJ: A month of illness and health care among low-income families. *Public Health Rep* 82:905, 1967
16. Twaddle AC: Health decisions and sick role variations. *J Health Human Behav* 10:105, 1969
17. Pomeroy R: Studies in the use of health services by families on welfare. New York, Center for the Study of Urban Problems (Graduate Division) of the City University of New York, 1969
18. Knapp DA, Knapp DE: Decision making and self-medication. *Am J Hosp Pharm* 29:1004, 1972
19. Dunnell K, Cartwright A: *Medicine Takers, Prescribers, and Hoarders*. London: Routledge and Kegan Paul, 1972
20. Roughmann RJ, Haggerty RJ: Family stress and the use of health services. *J Epidemiol* 1:279, 1972
21. Mechanic D: The influence of mothers on their children's health attitudes and behavior. *Pediatrics* 33:444, 1964
22. Robertson EK, Suinn RM: The determination of rate of progress of stroke patients through sympathy measures of patient and family. *J Psychosom Res* 12:189, 1968
23. Litman TJ: The family and physical rehabilitation. *J Chron Dis* 19:211, 1966
24. Mayer J, Myerson DJ: Characteristics of outpatient alcoholism in relation to change in drinking, work, and marital status during treatment. *Am J Stud Alcohol* 31:889, 1970
25. Schwartz D, Wang M, Zeitz L, et al: Medication errors made by elderly, chronically ill patients. *Am J Public Health* 52:2018, 1962
26. Bergman AB, Werner RJ: Failure of children to receive penicillin by mouth. *N Engl J Med* 268:1334, 1963
27. Charney E, Bynum R, Eldredge D, et al: How well do patients take oral penicillin: A collaborative study in private practice. *Pediatrics* 40:188, 1967
28. Heinzolmann F, Bagley R: Response to physical activity programs and their effects on health behavior. *Public Health Rep* 85:905, 1970
29. Oakes TW: Family expectations and arthritis patient compliance to a hand-resting splint regimen. *J Chron Dis* 22:757, 1970
30. Earp JA: Family and non-physician strategies for increasing adherence behavior to medical regimens. Presented at the Duke Forum for Primary Care, Durham, NC, April 2, 1977
31. Parsons T, Fox RC: Illness, therapy, and the modern urban American family. *J Soc Issues* 8:31, 1952
32. Katz AM: Wives of diabetic men. *Bull Menninger Clin* 33:279, 1969
33. Crain JA Jr, Sussman MB, Weil WB: Effects of a diabetic child on marital integration and related measures of family functioning. *J Health Human Behav* 7:122, 1966
34. Crain JA Jr, Sussman MB, Weil WB: Family interaction, diabetes, and sibling relationships. *Int J Soc Psych* 12:35, 1966
35. Gordon NB, Kutner B: Long-term and fatal illness and the family. *J Health Human Behav* 6:190, 1965
36. Downes J: Illness in the chronic disease family. *Am J Public Health* 32:589, 1942
37. Klein R, Dean A, Bogdanoff M: The impact of illness upon the spouse. *J Chron Dis* 20:241, 1968
38. Downes J: Chronic disease among spouses. *Milbank Mem Fund Q* 25:334, 1947
39. Ware JE, Wright WR, Snyder MK: Consumer perception of health care services: Implications for academic medicine. *J Med Educ* 50:839, 1975
40. Sheps CC, Slass JH, Cahill BS: Medical care in Aluminum City: Part I: Families and their 'regular doctors.' *J Chron Dis* 17:815, 1964
41. Hulka BS, Kapper LL, Daly MB, et al: Correlates of satisfaction and dissatisfaction with medical care: A community perspective. *Med Care* 13:648, 1975
42. Mary GP, Kaelbling R: The family doctor as a current source of continual comprehensive medical care. *Ohio State Med J* 67:1007, 1971
43. Litman TJ: Health care and the family: A three-generational analysis. *Med Care* 9:67, 1971
44. McKenna MS, Wacker WEC: Do patients really want a family doctor? *N Engl J Med* 295:279, 1976
45. Calling A: The sick family. *J R Coll Gen Pract* 14:181, 1964
46. Pless IB, Satterwhite BB: A measure of family functioning and its application. *Soc Sci Med* 7:613, 1973
47. Satterwhite BB, Zweig SS, Iker HP, et al: The family functioning index: Five-year test/retest reliability and implications for use. *J Comp Fam Studies* 7:111, 1976
48. Cowen DL, Barbara JA: Family-centered health care: A viable reality? *Med Care* 10:164, 1972
49. Beloff JS, Snobe PS, Weinerman ER: Yale studies in family health care: Part 2: Organization of a comprehensive family health care program. *JAMA* 204:355, 1969
50. Silver GA: *Family Medical Care: A Design for Health Maintenance*. Cambridge, Mass, Ballinger, 1974
51. Medalie JH, Kalman JM: Evaluation of medical care: Methodological problems in a six-year follow up of a family and community health center. *J Chron Dis* 19:17, 1966
52. Geyman J: On the need for critical inquiry in family medicine. *J Fam Pract* 4:195, 1977
53. Phillips TJ: Statement of intent as a candidate for president-elect of the Society of Teachers of Family Medicine. *Fam Med Times* 9(4):6, 1977