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What do physicians want?: an examination of physician's use of psychological consultation and referral

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WHAT DO PHYSICIANS WANT? AN EXAMINATION OF PHYSICIAN'S USE OF PSYCHOLOGICAL CONSULTATION AND REFERRAL

Iowa State University PH.D. 1985

What do physicians want? An examination of physician's use of psychological consultation and referral

by

Elizabeth Ann Kalb

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INTRODUCTION

Psychology is a health profession, states Schofield (1969), and psychologists are special health professionals. As such, the work of the psychologist goes beyond that of traditional mental health activities and extends to the full domain of physical and mental health care. Psychologists may make key contributions to the treatment and prevention of illness and injury, to the promotion and maintenance of physical and mental health, and to the improvement of health care delivery as well as continuing to provide mental health services. Psychology has had a long history of involvement in the health system (Stone, 1979); however, it is only of late that individuals have attended to psychology's role in providing clinical health services and hence the development of the subspecialty known alternatively as medical psychology, behavioral medicine, clinical health psychology, or health psychology. Overall, psychology has shown and continues to show increased interest and involvement in research and service in the health care field (McNamara, 1981). This current focus by psychology complements a growing trend in the health profession. Decrying the inadequacy of the current medical model, Engel (1977) argues for its expansion to a "biopsychosocial" approach to patient care. This model calls for considering biological, psychological, and social factors for understanding disease and determining effective treatments. In essence, the ideal health care program would attend to the whole patient and deal with both somatic concerns and psychosocial issues.

Psychologists may now be found engaged in health-related research, active in medical education, and providing health services (Schenkenberg, Peterson, Wood, & Dabell, 1981) and involvement in the health system is

increasing every year (Stabler & Mesibov, 1984). It is in the area of direct clinical service that the contribution of psychology to health care seems particularly potent. It is estimated that anywhere from 5% to 43% of medical patients presenting to their primary care physician have problems that are primarily emotional in nature (Goldberg, Haas, Eaton & Grubbs, 1976). A psychologist can play a major role in providing care or consultation for such individuals. As medicine strives to attend to the whole patient, there has been increasing recognition of the role of psychological factors in disease and injury. Schofield (1979) contends that at least one third and possibly three-fourths of medical patients have significant psychological components in their presenting complaint. Again, the psychologist may be significant in attending to such processes as well as assisting the patient's coping and adjustment, facilitating recovery and rehabilitation, and providing specialized assessment or treatment services. Finally, psychology may offer the best means to prevent, alter, or treat certain health impairing behaviors or medical disorders such as smoking, poor stress management, or obesity. The psychologist could serve as primary provider of such treatment.

All of these cases, however, demand that a medical patient somehow enter into a psychologist's care. This entrance is likely gained through the patient's physician. The general medical practitioner has been labeled the "central gateway to psychological care" (Rosen & Wiens, 1979, p. 422) and is responsible for referral to other helping professionals (Engel, 1977). The majority of individuals with psychological disturbance first consult with a general practitioner and may or may not be referred (Rosen & Wiens, 1979). Similarly, it is up to the physician to decide if a given

illness or injury merits psychological as well as physical treatment or if a given health problem is best handled by nonmedical means. The question to be considered is: what causes the physician to open the gate? More properly, this research project is an examination of the processes of psychological consultation and referral by physicians. It examines why a medical doctor elects to request the services of a psychologist and further, why a physician may elect not to request services.

The need for such an evaluation is strong. Psychology has shown increased interaction and involvement in the health care field and, with this, demonstrated a definite desire to further expand the roles and functions of the health care psychologist. In order to do so, however, it is necessary to understand the nature and working of the present system. Since physicians are key components of this system it is important to determine how they currently choose to interact with psychologists. Such information will tell psychologists where they stand now and what they need to do in the future. Further, it gives the field of psychology a better understanding of the nature of the overall health care system.

The rationale and background for this study is provided in the following literature review. It will begin by examining the actual and potential contributions of the psychologist to the health care field; it will provide support for the underlying assumption of this project that physicians should open the gate and, more broadly, that psychologists should be involved in health care. This review will then consider the present "state of the art" of physicians' use of referral and consultation. First to be considered is referral to general mental health services and second is psychological referral and consultation with specific attention

to behavioral medicine and health psychology services. The final review section will examine factors which may act to deter or affect referral or consultation in some way.

LITERATURE REVIEW

The Role and Functions of the Health Care Psychologist

The roles and functions of the "health care psychologist" are many and varied. He or she may serve as clinician, consultant, or researcher working as an independent practitioner, as a member of a multidisciplinary team, or in providing education or support to other health care providers. A key question is whether such work is the same or different from the general practice of psychology. In a broad sense, it is not. If one accepts Schofield's definition, then all psychologists are health care psychologists and psychology is a health care profession. Psychology, he contends is a life science; it is a science of behavior. Since behavior involves both physical and mental health then psychology may be considered a health science (Schofield, 1969, 1975, 1979). Doubtless many psychologists providing "traditional" mental health services, services which could be classified as health care services, would not define their work as "special." They may accept emotionally disturbed patients by referral or recommendation of a physician or other health care provider but they themselves are autonomous professionals and function independently of physicians.

Alternatively, it may be suggested that the role of psychologist in medical settings, providing health services, or in dealing with other health professionals is qualitatively different from work done in other settings. Literature consistently describes this work as somehow unique from the general practice of psychology (Enright, 1983; Millon, 1982; Stabler & Mesibov, 1984; Tuma, 1982) although there is a lack of consensus

in regard to the exact roles and functions of psychologists in the area (Stabler & Mesibov, 1984). That such work is considered unique, a speciality area, is logical. As above, the psychologist is considered an autonomous professional (Millon, 1982) providing both traditional and specialized assessment, intervention, and consultation services. At the same time, he or she is in close contact with physicians and the medical world and may face demands not found in other areas of psychology. This is particularly true when the psychologist works directly within a medical setting. The psychologist must work with others who differ in terms of training, nature of practice, and approach to treatment (McNamara, 1981; Roberts & Wright, 1982; Tefft & Simeonsson, 1979). Psychologists and other health professionals may hold different ideological models of health care and disease (Burstein & Loucks, 1982). The setting itself may involve limitations of space and time, have a hierarchical structure of medical authority, and be multidisciplinary in nature (Drotar, Benjamin, Chwast, Litt & Vajner, 1982). Indeed, there is recognition that training for such work must cover both the "core" components of psychology and education in the knowledge and skills specifically applicable to health and health care (Burstein & Loucks, 1982; Drotar, 1978; Millon, 1982; Russo, 1985; Schofield, 1979; Wellisch & Pasnau, 1979; Wertlieb & Budman, 1979). The idea of a specialized area seems most applicable to the practice of behavioral medicine or clinical health psychology.

Regardless of whether such work is considered general or special the psychologist has much to contribute to health care. Functions may range from providing mental health services to patients identified in the medical sector, to being a component of the general health care program working to

enhance a medical patient's emotional well being or providing specific assessment or treatment services, or being a primary provider of health care. Each of these three main areas of functions will be described below.

Mental health services

A major function of the health care psychologist may be that of provision of treatment of or consultation for mental health problems initially identified in the nonpsychiatric health care sector. Simply put, he or she may serve to provide "traditional" mental health functions. There is a strong need for such a service as the prevalence of psychiatric disturbance in this care sector is well acknowledged. As noted earlier, it is estimated that anywhere from 5% to 43% of patients visit their primary care physicians for problems that are primarily emotional in nature (Goldberg et al., 1976). Overall, studies report that between 4% to 20% of patients in general medical practice exhibit some form of psychiatric disorder and, while most is in the form of a neurotic disorder, the full spectrum of psychopathology is seen (Houpt, Orleans, George, & Brodie, 1980). Physicians themselves are also cognizant of the significant amount of emotional distress in their patients. Fauman (1983) found that a group of internists and surgeons estimated that 21.1% of their patients had "substantial psychiatric problems" (p. 761) while Orleans, George, Houpt, and Brodie (1985) found that a group of family practitioners estimated that 22.6% of their patients had "significant emotional or psychiatric problems warranting evaluation and treatment" (p. 53). Overall, of the approximately 15% of Americans affected by a mental disorder 60% are identified and/or treated in the primary care sector (Regier, Goldberg, & Taube, 1978).

Given the above, psychological or psychiatric issues are a major concern in general medical care and the impact of emotional disturbance on this sector may be felt in many ways. Individuals with emotional difficulties often first contact their physician for their problems. In an early study examining mental health and help seeking, Gurin, Veroff, and Feld (1960) found that individuals most often consulted clergymen and physicians for mental health problems. More recently, both Kiraly, Coulton, and Graham (1982) and Flaskerud and Kviz (1982) found that many individuals prefer to consult with their general or family physician particularly for personal problems with associated physical manifestations, depressive symptoms, and substance abuse. Further, the nonpsychiatric physician, as noted earlier, is often the first to identify the presence of emotional disturbance. Nearly one half of all physician office visits which result in a diagnosis of mental disorder are to nonpsychiatrists (Schurman, Kramer, & Mitchell, 1985). Such emotional disturbance may be blatantly obvious or subtly hidden. Numerous authors speak of patients' tendencies to use physical complaints as a means of gaining access to a physician to talk about their "real" problems. Weyrauch (1984) found that individuals who showed or admitted to "psychosocial problems" during a visit to a family physician initially presented with medical symptoms or health maintenance needs. Patients may also express their emotional troubles in the form of somatic complaints. Goldberg (1979) points out that many individuals defined as mentally ill may often first present with somatic symptoms rather than complaints about their mental status.

The physician, then, has the significant task of first identification

and then referral or treatment of such distress. Again and again the physician has been labeled as the "gatekeeper" for mental health services. Gurin et al. (1960) found that physicians act as referral sources to other mental health services although, it was noted that their performance as such an agent does not differ vastly from family and friends. Physicians themselves play a significant role in treating psychiatric disturbance. Internists and surgeons report they spend approximately 17% of their time dealing with psychiatric problems and indicate preference to treat more common problems such as depression, anxiety, and organic brain syndrome (Fauman, 1983). Similarly, family practitioners report that, for the one out of five patients having significant psychiatric problems, they treat most themselves (Orleans et al., 1985). Overall, Regier et al. (1978) estimate that 54% of adults with psychiatric disorders are treated in the primary care sector. However, it is continually pointed out that the primary care physician lacks both the time and training to effectively deal with the various forms of psychiatric distress seen in his or her practice and could benefit from advice and assistance in mental health treatment. Thus, the availability of mental health services to the primary care physician for referral or consultation seems invaluable benefiting the patient, the physician, and the health system. Individuals with emotional distress have been found to be inappropriate and overutilizers of medical services as well as an emotional burden for the nonpsychiatric physician (Houpt et al., 1980; Rosen & Wiens, 1979). Referral of such patients to mental health specialists can result in subsequent decrease in the use of general medical services thus benefiting the health system (Cummings & Vandenbos, 1979; Follette & Cummings, 1967; Goldberg, Krantz, & Locke,

1970; Rosen & Wiens, 1979) as well as the physician. Finally, it seems an obvious point that referral or consultation should also help the affected patient.

Medical care components

Psychologists may also function as part of a general medical program providing specific diagnostic or treatment components or working to enhance patient care. Thus, work may involve the application of "traditional" mental health services to medical patients helping to maintain the emotional well-being of the ill or injured and those around them, intervening to help an individual cope with medical problems and medical procedures, or working to facilitate the patient's rehabilitation and recovery. With this, the psychologist may also aid those around the patient in coping and recovery process. Such interventions are invaluable as they may serve to foster the adaptive ability of the patient and his or her significant social system, provide a necessary component of medical care, and prove catalytic to overall treatment. Finally, the psychologist may serve in specific, established roles within the medical sector providing specialized diagnostic or treatment services such as neuropsychological assessment, rehabilitation services, and general psychodiagnostic evaluation (Burstein & Loucks, 1982).

Psychological or psychiatric distress has a known association with illness or injury. Lipowski (1983) reports that the prevalence of psychiatric morbidity among general hospital inpatients is estimated to range from 20% to 70% while Schofield (1979) contends that at least one-third and possibly three-fourths of medical patients have a significant psychological component in their presenting complaint. Doubtless at

least part of these figures are included in the prior estimates of general psychiatric disturbance seen in primary care as physical and emotional distress are often intertwined and it is difficult to determine what is cause and effect. However, whether the given disturbance is viewed as a reaction to the illness or injury or considered a contributing factor to its etiology seems unimportant. It is the presence of the distress that is significant. It seems best to view any medical pathology as "multifaceted and multidetermined" (Turk, Meichenbaum, & Genest, 1983, p. 21) and meriting broad spectrum treatment.

Overall the experience of illness or injury, its occurrence, and resulting course and outcome, is stressful and is likely to engender emotional reactions. Depression or anxiety or a mixture of the two is commonly found in medical patients (Schofield, 1979). One-third to one-fifth of hospitalized medically ill patients are estimated to show some degree of depression (Cavanaugh, Clark, & Gibbons, 1983). Cancer, for example, has a known association with significant psychological distress and such distress does not necessarily recede with time (Gordon, Friedenbergs, Diller, Hibbard, Wolf, Levine, Lipkins, Ezrachi, & Lucido, 1980). Depression is considered a common reaction in post-myocardial infarction and has been shown to contribute to invalidism and disability (Houpt et al., 1980). Major injuries, such as severe burns, demand dealing with painful, debilitating, and often deforming traumas which require a re-engineering of self-esteem, sense of identity, and interpersonal relationships (Andreasen & Norris, 1977). Illness or injury seems best viewed as a major life crisis which brings with it both illness related and general adaptive tasks and demands a variety of coping skills (Moos & Tsu,

1977). The individual must learn to deal with the event and its effects and treatment, to maintain emotional balance and positive self-esteem, to preserve satisfying social relationships, and to prepare for the future. Individuals may cope through denial, information-seeking, or finding a new purpose in life (Cohen & Lazarus, 1979; Moos, 1982; Moos & Tsu, 1977). Individuals around the patient--his or her significant social system--are also facing a major crisis and are likely to experience emotional upset and the need to master similar adaptive tasks (e.g., Eisenberg, Sutkin, & Jansen, 1984; Moos, 1977). In essence, illness or injury requires major adjustment for an individual and his or her family. Effects may be temporary or may require acceptance of permanent changes and possibly eventual death.

Diagnosis and treatment of physical illness or injury posits adjustment problems as well. Medical procedures such as cardiac catheterization, gastrointestinal endoscopy, and debridement of burns are known to be aversive producing pain, discomfort, and suffering (Turk et al., 1983). Surgery has been shown to be highly stressful and much has been written about the relationship between psychological variables and recovery. Individuals demonstrating high preoperative anxiety are shown to have more post-operative difficulties while individuals rating high on process measures of depression have more complicated recoveries (Cohen & Lazarus, 1979). Hospitalization itself is an upsetting experience requiring separation from significant others, exposure to unfamiliar routines, and a need to interact with a wide range of professionals (Moos, 1977).

The role of psychological factors in a patient's rehabilitation and

recovery process is equally important. The period of convalescence may be one of emotional turmoil as the individual struggles to overcome or adapt to the effects of the illness or injury. Depression, anxiety, a general "invalidism" marked by helplessness, dependency, and restriction of activity may be a common reaction particularly for victims of physical traumas such as stroke, myocardial infarction, or spinal cord injuries. These emotional or behavioral states may act to worsen the patient's medical state and make recovery difficult (Turk et al., 1983). Poor adjustment may even increase the rate of mortality (Kimball, 1969). Similarly, the patient's social system is also undergoing a recovery and rehabilitation process and may suffer emotional upset as well. Family members are likely to find themselves feeling depressed and anxious and the family itself may experience increased conflict, strife, and upset (Brodland & Andreasen, 1977; Wishnie, Hackett, & Cassem, 1977). Behavioral factors are equally important. Achieving treatment compliance and assuring adequate self-care are also significant in rehabilitation and recovery particularly when the process is less that of convalescence and more of adjustment to illness or injury. Increasingly, it is the patient who manages his or her care and provides his or her own treatment. For example, chronic conditions such as diabetes, hypertension, and kidney disease may require the patient to follow a set diet, maintain proper exercise, and take specific medications. All are behaviors which are under the patient's control. Failure to adhere to such regimens is a major problem. Overall, treatment noncompliance is considered a significant issue in health care and it is estimated that at least one-third to one-half of patients do not comply to health care recommendations

(Davidson, 1982; Epstein & Cluss, 1982; Miller, 1983; Turk et al., 1983).

Thus, the psychologist seems able to make many significant contributions in general medical care either directly providing treatment or serving as a consultant or support for care providers. Attending to the psychological components of illness or injury can be useful in alleviating emotional distress and prove a valuable component of medical treatment benefiting both the patient and the health system. Health care providers may assist in a patient's adjustment to the illness or injury and to cope with the aversiveness and upset of treatment. For example, simple psychotherapy has been found to enhance recovery from myocardial infarctions (Gruen, 1975) and the use of preoperative "preparative" therapy has been found to facilitate recovery from surgery (Cohen & Lazarus, 1979). Behavioral interventions have been successfully utilized in helping patients cope with the aversiveness of cancer chemotherapy (Redd & Andrykowski, 1982). The clinician may also serve to enhance rehabilitation and recovery or, at least, to help the patient accept his or her eventual demise. Campbell and Sinha (1980), for example, describe the generally beneficial (although not statistically significant) effects of brief group psychotherapy for chronic hemodialysis patients. Similarly, the health care clinician may also act to aid the patient's family in adjusting to the demands of the illness or injury (e.g., Brodland & Andreason, 1977). Family therapy is beginning to be seen as a valuable adjunct in medical care (Coyne & Holroyd, 1982). Treatment compliance and nonadherence are recognized as complex, multifaceted issues and, as of yet, no one has discovered "cures" for these problems. Nevertheless, research has uncovered factors which can act to enhance compliance such as improving the

helper-patient relationship (Janis, 1983), employing behavioral techniques (Epstein & Cluss, 1982), and other methods (Kirscht & Rosenstock, 1979). Finally, the well-known specialized roles of psychologists in medical settings are not to be ignored. Psychologists have long served as part of general psychiatry teams and have provided specialized vocational rehabilitation services (Burstein & Loucks, 1982). Psychologists may provide neuropsychological assessment both for specific neurological problems (Burstein & Loucks, 1982) as well as dealing with cognitive impairments resulting from illness or injury. The psychologist may also help determine if a patient is appropriate for or can tolerate a given treatment such as organ transplantation, gastric stapling, or major orthopedic repairs (Burstein & Loucks, 1982).

Primary health care

While the importance of these first two areas of service are not to be discounted, no where does the psychologist shine more than as the primary provider of health care. This is the domain of behavioral medicine (or what could also be termed clinical health psychology or health psychology), the application of psychological principles in health and health care. Aspects of this field could be seen in the prior section. It is becoming increasingly recognized that a significant number of today's health problems are related to the American lifestyle--to attitudes and behaviors--not infectious pathogens or external environmental factors. The focus in medicine has changed from treating acute conditions to managing chronic disease, dealing with the effects of maladaptive lifestyles, and coping with injuries from accidents, violence, and so forth (Houpt et al., 1980; Miller, 1983; Stachnik, 1980; Turk et al., 1983). In fact, the

health problems engendered by our lifestyles and behavior have been labeled as a major challenge to psychology (Matarazzo, 1982). Psychological techniques may prove the ideal means to prevent health problems, to alter present maladaptive behaviors or states, and to treat or provide adjunctive treatment of specific medical disorders.

Preventive health care, generally educational in nature, may take various forms. The focus may be on elimination or modification of specific behavioral risk factors such as smoking or drug abuse or in the development and maintenance of health behavior such as dental self-care. Alternatively, programs may take a broad range approach and seek to help individuals develop an overall healthy lifestyle. Finally, since risk is not always necessarily a function of an individual's behavior, preventive health care can work to help individuals learn to effectively deal with harmful situations known to impair health. Individuals can be taught, for example, how to cope with or adjust to high levels of environmental stress (Singer & Krantz, 1982; Stachnik, 1980; Turk et al., 1983). Rather than having to try and change an engrained behavior, one likely to already have had detrimental effects, it seems best to prevent a problem before it starts. Simply put, "an ounce of prevention is worth a pound of cure."

Psychological approaches may also be utilized to alter or remove maladaptive behaviors or behavioral states such as cigarette smoking, poor eating habits, and inadequate stress management known to lead to health problems (Houpt et al., 1980; Miller, 1983; Singer & Krantz, 1982; Stachnik, 1980; Turk et al., 1983). This, too, is important as a significant number of individuals exhibit such behaviors and, as of yet, there is no magical cure to alleviate them. Individuals may be helped to eliminate

or modify these behaviors or to replace them with more adaptive ones (Turk et al., 1983) allowing for more effective self-management and reducing the risk of health problems (Pomerleau, 1982).

Finally psychological techniques may be a primary form of intervention for specific disorders or problems. They may be the only form of treatment for a given problem or perhaps the ideal form of treatment. Certain "medical" disorders such as anorexia nervosa or substance abuse are actually treated by multidisciplinary, largely psychological, means. While they are defined as "diseases" medical science has yet to find an organic therapy by which to cure them. Behavioral or psychological approaches may also be the preferred treatment for certain disorders. For example, hypertension may be better treated by helping individuals modify or alter their lifestyles rather than relying on anti-hypertensive medication (Miller, 1983) or by using a combination of drug and behavioral therapy (Goldstein, Shapiro, Chalemphol & Sambhi, 1982). Psychological techniques can also serve as key components in a given medical regimen. For example, including psychological or behavioral interventions aids in the management of chronic pain (Houpt et al., 1980; Keefe, 1982; Turk et al., 1983), treatment of hypertension (Shapiro & Goldstein, 1982) asthma (Creer, 1982), Raynard's disease (Surwit, 1982), and gastrointestinal disorders (Whitehead & Bosmajian, 1982).

Granted, the development and use of these applications for health care is still in a tentative and pioneering stage (Turk et al., 1983) and one must be cautious and not overstate claims of effectiveness or benefit (Kaplan, 1984). Nevertheless, these approaches do seem to show significant promise for the future serving both the individual and the health care

system. Educational programs aimed at preventing school children from smoking have shown adequate promise (Evans, Rozelle, Mittelmark, Hansen, Bane, & Havis, 1978) as have community-wide risk factor reduction programs (Maccoby, Farquhar, Wood, & Alexander, 1977). Psychological interventions have proven effective in modifying health problems such as smoking (Houpt et al., 1980; Lando, 1977, Lichtenstein, 1982), obesity (Brownell, 1982; Houpt et al., 1980) and Type A behavior (Suinn, 1982) and are preferred treatments for certain forms of insomnia (Borkovec, 1982) and hypertension (Shapiro & Goldstein, 1982). Finally, as noted above, psychological interventions can either serve as effective primary treatments for medical problems such as substance abuse (Houpt et al., 1980) or be a major component of a given care regimen such as in the management of chronic pain (Houpt et al., 1980, Turk et al., 1983).

One would be remiss if one did not also comment on other key contributions of psychologists to health care although they will not be investigated in this study. As noted earlier, psychology has had a long history of involvement in the health field and has been active in research on health and medicine and in the education of health professionals. The importance of the work in these areas should not be ignored. Research may be invaluable in providing a better understanding and management of health problems (Schofield, 1979). Psychologists may also play key roles in educating future medical professionals providing them with an understanding of behavior and behavioral science (Burstein & Loucks, 1982; Schofield, 1979). Thus, here too, the psychologist has much to contribute.

To summarize, then, the actual and potential roles and functions for the psychologist in the health care sector are many and varied. He or she

may provide "traditional" mental health services. He or she may provide part of general medical program providing specialized diagnostic or treatment services or working to enhance patient care. He or she may act as primary care provider for preventive or remedial treatments. In providing such functions, he or she may work as clinician or consultant or even as researcher or teacher. All of these descriptions of real-life and fantasized work have a commonality which was noted in the introduction: all involve interaction and involvement--some form of working relationship--with physicians (Stabler & Mesibov, 1984) and, in most cases, the physician will serve as "activator" for the psychologist's work. He or she is the one to identify, he or she is the one to refer, he or she is the one to request consultation. He or she is the one "in control." Overall, physicians are and will be significant in determining how psychologists function and what roles they can and will play in the health care system. Agras (1982), in describing the "best possible world" for the future of behavioral medicine and clinical health psychology, views the physician as holding primary responsibility for the health care of patients while acting as a referring and coordinating agent for other services as needed. Even for "traditional" mental health services the physician still plays a role as "gatekeeper." How do physicians currently interact with psychologists? What is "state of the art" of psychological consultation and referral? This will be examined in the next section.

The "State of the Art" of Psychological Referral and Consultation

Determining the "state of the art" of psychological referral and consultation and thus the current roles and functions of the psychologist in the health care system has been one of the more difficult tasks of this review. On one hand, it is likely that relevant data, albeit reported as an aside, may be found in a large number of studies. To try and locate all would be an impossible task. On the other, there is a paucity of studies directly examining physician's referral and consultation practices to psychologists. As such, it is difficult to know actual conditions. In order to provide what is a likely portrait of current practices it is necessary to draw on several sources. I will begin by examining information on physician's referral to mental health services, information drawn largely from literature on referral to psychiatric services, first looking at referral to general mental health services and then to referral to consultation-liaison psychiatrists. This review will then examine what is known about psychological referral and consultation practices with specific attention to behavioral medicine and health psychology services.

Mental health services

The general physician, as noted earlier, plays a significant role in the mental health system either as primary provider of treatment or serving as "gatekeeper" to other mental health services. As gatekeepers they refer an approximate 1% of all patients seen and from 5% to 50% of all patients diagnosed as having some form of psychiatric disorder (Houpt et al., 1980). It is continually noted that there is a definite tendency to "underrefer" patients to the mental health sector. That is, while there is a

significant incidence of psychiatric disturbance in general medical care, as indicated in the prior section, only a small percentage of affected patients are referred on for treatment. This is, not surprisingly, a major concern (Crawford & Crawford, 1973; Fink, Goldensohn, Shapiro, & Daily, 1969; Hilkevitch, 1965; Roberts & Norton, 1952; Schurman et al., 1985) although it has been found that with active education and intervention referral rates can be raised (Crawford & Crawford, 1973; Fink et al., 1969; Goldensohn, Fink, & Shapiro, 1969). This tendency to underrefer will be explored further in a subsequent section.

It is difficult to provide an adequate analysis of the types of patients or problems referred as such data is rarely or only incompletely reported. From the data that is available, anxiety or depression seem to be the most common problems referred although the full spectrum of psychiatric diagnoses have been seen (Hilkevitch, 1965; Shortell & Daniels, 1974). It is generally believed that physicians tend to refer on the more severe, chronic, or difficult cases such as psychosis or personality disorders as well as transient situational disturbances (Fink et al., 1969; Hilkevitch, 1965; Regier, Goldberg, Burns, Hankin, Hoeper, & Nyez, 1982; Schurman et al., 1985). Various individuals, however, do offer some contradictory observations. Hilkevitch (1965) suggests that physicians may be less apt to refer patients with chronic conditions because they believe that little can be done for the individual. Regier et al. (1982) report that physicians are more prone to treat "neurotic disorders" (p. 224) which have predominant symptoms of anxiety and depression. Overall, however, it does appear that physicians tend to request referral or consultation for more severe patient problems or symptoms.

However, the physician's function as gatekeeper is not to merely "dump" his or her more difficult patients into the laps of mental health services providers. It is observed that physicians can also play valuable roles in easing people into this service sector. Goldensohn et al. (1969) suggest that the family physician is able to refer more people from groups--the less well-educated, individuals having less experience with psychotherapy, or patients holding less positive views toward psychiatry--than are otherwise likely to reach mental health services on their own. They note such physicians are able to recognize and refer patients with emotional problems before such distress or disturbance is seen or accepted by the patient. Further, evidence indicates that physicians choose to refer on patients for whom simple in-office treatment, such as doctor-patient discussions, does not work (Fink & Shapiro, 1966).

Psychiatric consultation

Analysis of psychiatric consultation, the field of consultation-liaison psychiatry, provides more detailed information on physician's referral and consultation practices particularly in regard to medical patients and medical problems. This field, seen as an interface between psychiatry and medicine (Schwab, 1968), is broadly defined as the subspecialty of psychiatry encompassing all "clinical, teaching, and research activities of psychiatrists and allied health professionals in the nonpsychiatric divisions of a general hospital" (p. 624) and other health care facilities (Lipowski, 1974). While it is strongly flavored by theories of psychosomatic medicine the field has expanded to incorporate aspects of behavioral medicine, holistic health care, and general hospital

psychiatry (Lipowski, 1983; Pasnau, 1982). The roles and functions of this "consultant" are analogous to many of the previously described actual or potential functions of the health care psychologist specifically involving his or her work in the general hospital or general medical setting.

As noted earlier, research has consistently indicated that there is a high degree of emotional disturbance in medical populations. Estimates of psychiatric morbidity for hospital inpatients range from 20% to 70% (Lipowski, 1983) with depression being the most common problem. These estimates likely do not include management problems, noncompliance, and the like which are also noted as major concerns for health care settings. At the same time, similar to the referral situation for the general mental health sector, there is a significant discrepancy between these estimates of disturbance and the percentage of patients referred for psychiatric consultation. Reviews of research on consultation patterns in general hospital and outpatient settings report that referral rates range from .5% to 13% of patient populations (Houpt et al., 1980; Lipowski, 1967b, 1983; Ries, Kleinman, Bokan, & Schuckit, 1980). This discrepancy is noted by many investigators (Bustamente & Ford, 1981; France, Weddington, & Houpt, 1978; Kligerman & McKegney, 1971; Lipowski, 1967b, 1983; Lipowski & Wolston, 1981; Maguire, Julier, Hawton, & Bancroft, 1974; Pritchard, 1972; Sasser & Kinzie, 1978-79; Schubert & Friedson, 1980-81; Schubert, Gabinet, Friedson, Miller, & Billowitz, 1978-79; Schwab, Clemmons, Freemon, & Scott, 1965; Shevitz, Silberfarb, & Lipowski, 1976; Van Dyke, Rice, Pallett, & Leigh, 1980) and is a source of concern.

Depression and suicidal ideations, management or behavioral problems,

and need for some form of diagnostic evaluation are the most common reasons for requesting referral and consultation and substance abuse or addictive concerns, suspected organic brain syndrome, and need for disposition are also frequently seen (Anstee, 1972; Bustamente & Ford, 1981; France et al., 1978; Karasu, Plutchik, Steinmuller, Conte, & Siegel, 1977b; Katon, Williamson, & Ries, 1981; Kligerman & McKegney, 1971; Lipowski & Wolston, 1981; Pritchard, 1972; Ries et al., 1980; Sasser & Kinzie, 1978-79; Shevitz et al., 1976; Van Dyke et al., 1980; Wasylenki & Harrison, 1981; Weddige, 1979) although Sasser and Kinzie (1978-79) found approximately half of their services requests to be vague or unclear and Ries et al., (1980) observed, based on a review on consultation literature, that physicians rarely reported psychiatric symptoms or diagnoses. Frequency and types of problems requests, however, may well vary according to service and setting. Gelfand and Kiely (1980), for example, found that suicide attempts and transient situational disturbances are the most frequent reasons for referral in a specialized short-stay diagnostic and evaluation service. Wasylenki and Harrison (1981) found illness adjustment problems (presented in the referral as depression) as the most common reason for referral in a chronic care hospital. In general, there is little specific indication of referral or consultation for what could be considered health psychology or behavioral medicine functions although assisting in patient management is a frequent reason for referral and appears to consist of dealing with disturbing behavior on the ward, noncompliance or lack of cooperation, and somatization.

Consultants themselves have observed that physicians are likely to have covert reasons for requesting referral which may stem more from the

physician's need rather than the patient's problems. Bustamente and Ford (1981) report that, in the opinion of their psychiatric consultant, 13% of the consultation requests in their hospital were a result of covert physician problems such as anxiety in dealing with the terminally ill or discomfort with patients having a prior psychiatric history. While physicians may not directly refer for illness adjustment problems they may be the factor in determining the consultation request. Ries et al. (1980) estimated that 30% of the consultation requests they studied stemmed from "illness problems" such as maladaptive coping with illness or disability, marital upset, and financial gain or loss from the maintenance of symptoms.

Overall, work consistently indicates that, as with referral to general mental health services, physicians tend to request psychiatric consultation for severe, chronic, or troublesome problems or situations. In reviewing their own and other's work, Lipowski and Wolston (1981) state that "the decision to refer is influenced less by the presence and severity of psychopathology than by such factors as noncompliance, unexplained somatic complaints, or disturbing behavior on the part of patients and by the knowledge and attitudes toward psychiatry on the part of consultees" (p. 1610). Consultation, it appears, may well serve a protective function insuring that the physician has guarded against possibility of suicide, dangerous acting out, and similar problems or to insure that he or she has actively "checked out" all diagnostic possibilities. Consultation may also serve as a means of "fixing" a bad patient who shows disturbing or uncooperative behavior or whose behavior interferes with treatment. Problems which are likely to eventually go away such as transient situational disturbances, can be handled without benefit of a consultation

such as with medication, or which don't interfere with care are not likely to merit referral or consultation. Further, referral and consultation may be mediated by the presence or possibility of organic illness. Pritchard (1972), in studying referral patterns in a London hospital, found a general (although nonsignificant) decline in referral rates as organic involvement increased in the presenting psychiatric condition. Individuals with organic disease with a related psychiatric disorder and individuals with an organic psychiatric disorder were referred less frequently than those with primary psychiatric disorder or those with somatic symptoms with no organic basis. Physicians may well first explore all organic aspects of a syndrome before requesting referral. Rich (1980) found that patients, with the exception of those who had attempted suicide, were referred only after having had a comprehensive medical evaluation which failed to find a cause for the given complaints.

Of the patients referred, the full spectrum of psychiatric disorders is seen ranging from depression, substance abuse, personality and character disorders, organic brain syndrome, and psychosis (Lipowski, 1967b; Ries et al., 1980). Depression is the most common diagnosis (Bustamente & Ford, 1981, Karasu et al., 1977b; Lipowski, 1967b; 1983; Lipowski & Wolston, 1981; Ries et al., 1980; Shevitz et al., 1976, Van Dyke, et al., 1980; Weddige, 1979; Weddington, 1983). "Classical" psychosomatic disorders are infrequent (although it is observed by various investigators that patients may well mask depression and other forms of emotional disturbance with somatic symptoms and hence appear in the hospital or doctor's office) as are psychoses (Lipowski, 1967b; Ries et al., 1980). The majority of

referred patients had a medical as well as a psychiatric diagnosis. From their review, Ries et al. (1980) report that at least 70% of consultation cases had an organic disease of some form, providing further support for the observed association between physical illness and emotional disturbance.

Medical services and medical specialties vary in their use of psychiatric consultation and referral. Overall, general medical services show the highest percentage of referral and consultation requests with surgical services showing the least frequent use. All service areas, however, have shown some utilization of consultation and referral (Bustamente & Ford, 1981; Karasu et al., 1977b; Kligerman & McKegney, 1971; Lipowski & Wolston, 1980; Rich, 1980; Ries et al., 1980; Sasser & Kinzie, 1978-79; Weddige, 1979). Similarly, as might be expected given the above, internists and family practitioners--those in general medicine areas--tend to make the greatest percentage of referrals and consultations (Rich, 1980; Weddige, 1979).

Physicians themselves vary in terms of their stated referral and consultation practices as well. This will also be explored in a subsequent section. Overall, surveys find most physicians reporting they refer more severe or less common disorders or problems such as psychosis, suicide attempts, depression, and sexual dysfunctions (Fauman, 1983; Hull, 1979b; Winett, Majors, & Stewart, 1979). They indicate they are least likely to refer psychosomatic disorders and, oddly enough, although it appears as a fairly frequent reason for referral, show little preference to refer or consult for organic brain disorders (Fauman, 1983). Hull (1979b) also found physicians reporting few referrals for alcohol or addictive problems,

neurosis, and other personal problems (vocational, marital, etc). Further, most physicians prefer to request consultation rather than to simply refer (Fauman, 1983). There are differences, not surprisingly, in stated referral and consultation practices among specialities. In Fauman's (1983) survey more internists than surgeons were willing to treat psychiatric disorders with surgeons showing greater preference to request referral or consultation. Age of physician and background also appear to influence stated referral practices. Fisher, Mason, and Fisher (1975), in analyzing practice differences of physicians who graduated pre- and post-1950, found a greater percentage of post-1950 physicians indicating preference to make psychiatric referrals or use mental health resources. Similarly, Hull (1979a; 1980-81) found older physicians less likely to refer. Conversely, however, Shortell and Daniels (1974) found older physicians and those longer in practice reporting referring a greater percentage of patients to psychiatrists. Physicians with some form of mental health training or background showed greater awareness of mental health services and more willingness to refer problems such as substance abuse, adult psychological problems, family or marital disturbance, and sexual dysfunction although, at the same time, also indicated greater tendency to treat such problems as well (Winett et al., 1979).

Psychological referral and consultation

The "state of the art" of psychological referral and consultation is more difficult to determine. There appears to have been little examination of referral and consultation practices, what information that does exist is largely descriptive in nature. The psychologist in the general mental health sector probably faces the same conditions faced by other

professionals in this area. The various studies described earlier considered mental health services in general and included psychologists in their analyses. As such, the observed referral and consultation practices likely also pertain to psychologists. The psychologist's expertise in assessment and testing is noted and suggested as a reason for referral or consultation (Lothstein, 1977). Overall, however, most analyses are strongly flavored by psychiatry and psychiatric work. Whether or how referral and consultation to psychologists differs from referral and consultation to other mental health services remains unknown.

Similarly, the work of the psychological consultant in a general medical setting appears to be like that of the psychiatric consultant. Gabinet and Friedson (1980) described the activities of the first author, a psychologist, in serving as a front-line consultant in a general hospital. This individual functioned as a "typical" consultant providing diagnosis and treatment planning as well as being responsible for psychological testing and worked in a variety of settings including obstetrics and gynecology, medicine, orthopedics, and coronary care. She notes her experiences as consultant were quite positive and that she was well accepted by the medical community. Wellisch and Pasnau (1979) also describe the work of psychology interns in a consultation-liaison service in a major hospital. The interns provided "typical" consultant services in a variety of settings and their experiences were positive.

Analysis of data on psychological consultation and referral in medical settings, what there is of it, suggests that the overall patterns appear similar to those for psychiatric consultation. Horn (1983) analyzed referral patterns in a general hospital and found that approximately 2% of

hospital patients received a psychology department consultation. The common reason for referral was listed as "stress management" which the author defined as being assistance with mildly neurotic problems. Other referral requests were for neurologic problems, pain control, drug abuse, and marital problems. Schenkenberg et al. (1981), as part of an evaluation of their consultation service in a veterans administration hospital, found that approximately 25% to 35% of patients were seen by their service at any given time. They do not summarize reasons for referral but do indicate that the consultants dealt with a variety of psychological disorders reporting that depression and substance abuse were the most frequent problems for medical patients while neurological patients most frequently needed neuropsychological evaluation. Examination of pediatric psychology, a parallel to adult services (Drotar, 1977; Tuma, 1982) may also provide information regarding consultation and referral practices. Here most requests are for cognitive or intellectual evaluation involving such issues as placement, assessment of learning disabilities, and general evaluation of intellectual impairment. Other reasons for referral include problems in adaption to physical illness or handicap; school or behavioral difficulties; "psychosomatic" problems such as encopresis, abdominal pain, and headache; and acute crises such as attempted suicide (Drotar, 1977; Sheinbein, 1973; Smith, Rome & Freedheim, 1967). However, pediatric psychology does focus on children and children's problems and whether its situation is fully generalizable to adult services is not known. All in all, as with referral practices to psychologists in the general mental health sector, there is a lack of empirical analysis of work in this area.

Given the general trend so far it should be no surprise that there is

virtually no data on referral or consultation for the specific services of the health psychologist or for what may be considered health psychology or behavioral medicine functions. Horn (1983) reports that approximately 10% of referrals were for pain control although it is not apparent whether such referrals were made for specific psychological or behavioral treatments. Weinman, Mathew, and Claghorn (1982) surveyed physician's attitudes on biofeedback and found 22% reporting that they either had or would (it is difficult to tell from the study report) refer a patient for biofeedback as adjunctive treatment for disorders such as pain management, migraine, and muscle contraction headaches. Stabler and Mesibov (1984) surveyed health psychologists on the membership roster of Division of Health Psychology of the American Psychological Association (Division 38), and found most reporting spending the majority of their time providing treatment, testing, and general information and advice and indicating their major functions as consisting of treatment, teaching, and consultation. They fail to note the specifics of these services or functions. In general, most of information on work in this area is descriptive and there are a number of reports describing various "psychological" programs or services in health settings. Harper, Wiens, and Hammerstad (1981) describe the usefulness of a psychological assessment (psychometric instruments and interview) for a headache screening clinic. Similarly, Schraa and Jones (1983) report on their development of a psychometrically based intervention program for patients with asthma. Sank and Shapiro (1979) describe their "jack of all trades" role (being clinician, researcher, teacher, supervisor, consultant, and patient ombudsman) in a small health maintenance organization. Linton (1981) reports on his role as

psychological consultant, organizer, trainer, and clinician for a spinal cord injury treatment team in a general hospital. Schenkenberg et al. (1981) reported that pain management, weight reduction, and smoking cessation were part of their consultation services but unfortunately did not analyze these program components.

Based on what data are available and inferences from reports of similar specialties, certain tentative conclusions may be drawn. First, in regard to referral to mental health services, physicians tend to refer or request consultation for severe, chronic, or troublesome patients or problems. Similarly, in the hospital or other medical settings physicians also appear to request consultation for more severe or troublesome problems or when a patient's behaviors interfere with treatment. There is virtually no information on physician's referral or consultation for the specialized services of a psychologist and more specifically for behavioral medicine or health psychology functions. Various reports, however, do indicate that psychologists are involved in a variety of useful and innovative programs in health care settings. Overall, it appears that the physician's function as gatekeeper is significant, although as will be explored next, he or she does not appear to open this gate as much as she can or should.

Deterrents to Referral and Consultation

As noted in the prior section a major concern for mental health consultants is the discrepancy between the estimated incidence of emotional distress or disturbance in medical practice and the number of patients referred to a psychiatrist or other mental health professional. While the incidence of disturbance is high the number of patients referred is low. The physician does not open the gate in a significant number of cases. It

is likely a similar pattern exists for health psychology services. Why does the physician not refer? Why does he or she not open the gate? It is important to examine possible deterrents to referral and consultation as this, too, helps psychologists to understand the workings of the health care system. Work, drawn largely from the consultation-liaison psychiatry area and focusing on emotional disturbance, suggests three possible reasons for this failure to refer: the physician may not recognize the need for referral, the physician may choose to treat the given problem him or herself, or certain "attitudinal" factors may act to deter or affect referral in some way.

Failure to recognize need for referral

One possible reason for this underreferral may be that the physician fails to recognize a need for referral or consultation. Research on the physician's ability to identify emotional disturbance yields interesting albeit somewhat contradictory findings. In a British study, Goldberg and Blackwell (1970) found that approximately one-third of medical patients who had some form of psychiatric disturbance were not so recognized by a general physician. Maguire et al. (1974) studied recognition and referral of psychiatric disturbance in a British general hospital and found that the medical staff detected presence of disturbance in only half of the identified patients. Of interest, only part of the identified patients were referred on to psychiatrists. Similar findings are reported for the American medical sector. In a study with medical inpatients Knights and Folstein (1977) found that physicians failed to identify 35% of patients with serious emotional disturbance and 37% of patients with serious cognitive impairment. Similarly, Nielsen and Williams (1980) examined

physician's ability to detect depression in medical patients in a group practice program and found that these physicians did not recognize the presence of disturbance in 50% of the patients identified as depressed or showing some other forms of psychopathology while Thompson, Stoudemire, Mitchell, and Grant (1983) found that internists consistently underestimated the level of psychosocial distress in a group of clinic outpatients.

Overall, this failure of general physicians to fully recognize or identify disturbance in medical patients is a source of concern and is suggested to be determined by a combination of factors such as lack of training and/or skill in diagnosing disturbance, medicine's emphasis on biomedical aspects of illness and care, physician style and other personal factors (Schurman et al., 1985; Schwab, 1982) as well as the patient's own attitude toward and presentation of symptoms (Goldberg & Blackwell, 1970).

At the same time, it does appear that physicians are cognizant of some degree of psychiatric or psychological distress in their patients. A survey of five specialty groups (internal medicine-neurology, surgery, obstetrics-gynecology, pediatrics, and family medicine) found physicians estimating that 37% of their patients have "problems with significant psychological components" (p. 1002) although they also felt that psychiatric consultation was indicated for only 11%. Of interest, the actual referral rate was 3.6%. It was noted that physicians in family medicine and internal medicine-neurology gave higher estimates of psychological disturbance than those in other areas (Cohen-Cole & Friedman, 1982). In Fauman's (1983) survey of internists and surgeons, both groups estimated that 21.1% of their patients had significant psychiatric problems

although internists made higher estimations of disturbance (23%) than surgeons (14%). These physicians felt that depression was the most common problem and further that 15% of these patients could benefit from psychiatric treatment. An earlier survey found similar estimates although here it was observed that surgeons reported significantly lower occurrence of depression, organic brain syndrome, and psychosomatic disorders (Fauman, 1981). A survey of family practitioners, as noted earlier, found physicians estimating that an average of 23% of their patients had psychiatric problems, depression and anxiety states being most common (Orleans et al., 1985). Similarly, Cassata and Kirkman-Diff (1981) found family physicians estimating that 33% of their patients had psychological problems again with depression and anxiety-stress being the most frequently observed difficulties.

There will be no attempt to address the issue of recognition or the failure of recognition at this time. This problem merits a dissertation in its own right. As noted earlier, the literature yields rather contradictory findings. Physicians seem to fail to recognize a substantial amount of psychological or psychiatric disturbance yet also appear aware of significant psychological distress in their patients. It seems they may not be aware of specific diagnoses but they are aware of upset. Recall, physicians in the Cohen-Cole and Friedman (1982) study estimated that approximately one-third of their patients had significant psychological components in their illness but felt consultation was merited for only 11% and in actuality referred only 4%. Similarly, Orleans et al. (1985) report that physicians only referred one-fifth of patients they estimated to have significant psychiatric disturbance and Schubert et al. (1978-79) found

that 25% of hospital patients, identified as having a psychiatric diagnosis or said to have a psychiatric problem, never received a psychiatric referral. Thus, it appears that the physician may make a deliberate choice to not refer or request consultation. One possible reason for this choice may be that the physician elects to treat the disorder or problem him or herself. This will be examined next.

Decision to treat

It does appear that the general physician plays a major role in treating emotional disturbance. As reported in a prior section, approximately 60% of individuals are identified and/or treated in primary care (Regier et al., 1978). Schurman et al. (1985) found that half of all office visits resulting in a psychiatric diagnosis are made to nonpsychiatric, generally primary care, physicians. Overall, it is estimated that the nonpsychiatric physician provides a "substantial share" (p. 692) of mental health services (Regier et al., 1978). As noted earlier, physicians report treating a significant amount of psychiatric disorder themselves (Fauman, 1983; Orleans et al., 1985). Fink et al. (1969) found that of the patients not referred for psychiatric treatment in a group practice program, 41% were treated by the physician him or herself and that this was a preference of the physician.

Medical specialty and personal and professional physician variables, as observed in a prior section, influence this decision to treat. Fauman (1983) found internists more willing to treat psychiatric disorders than surgeons. Cohen-Cole and Friedman (1982) found that family practice physicians, while estimating more of their patients to have major psychological components in their illness than most other specialties,

felt consultation was indicated for significantly less patients than physicians in other areas. Whether this is because the given disturbance is less severe or the physician treated the problem him or herself is unknown. Winett et al. (1979) did find that physicians in "mental health related" specialties (family, general, allergy) reported treating more serious psychiatric problems than physicians in unrelated specialties (surgery, ophthalmology, dermatology) although they were also likely to refer such problems as well. In general, later trained, and/or younger physicians, those with mental health training or background, and those with a positive attitude towards psychiatry are more likely to both to treat and to refer mental health problems (Fisher et al., 1975; Houpt et al., 1980; Hull, 1979a, 1980-81; Winett et al., 1979).

Patient characteristics or the given problem also appear to influence the decision to treat. Schurman et al., (1985) found that those mentally ill being treated by nonpsychiatrists were more likely to be female, to be nonwhite, and to be elderly in addition to being less seriously ill and to more likely present with physical problems. Although the physician has been noted to be part of an important "filter-down" process for certain populations (Fink et al., 1969; Fink & Shapiro, 1966, Goldensohn et al., 1969), he or she may still serve significant segments of society who cannot or will not seek out specialized treatment.

Physicians themselves seem to hold a mixed view regarding their role in treatment. Hull (1980-81) found that approximately half (56%) of surveyed physicians agreed with the statement that the treatment of psychiatric disorders is the responsibility of the family physician however 35% disagreed with this statement and 9% were undecided. His review of the

literature indicates that this pattern of nonuniversal agreement is in accord with prior findings. Physicians are split in terms of whether they can or should treat such disturbance. Cohen-Cole and Friedman (1982) found 78% of their physician sample expressing more comfort in handling psychological problems for which they did not request consultation. At the same time, physicians also express concern about their training and ability to handle given problems. Both Cohen-Cole and Friedman (1982) and Orleans et al. (1985) note that physicians cite lack of training as an obstacle to referral or treatment of disturbance. Nethercut and Piccione (1984) in a survey of physician attitudes described in the next section, found 60% of physicians rating themselves as inadequately prepared to attend to the psychological aspects of illness. Further, Orleans et al. (1985) also note lack of time as a major concern.

It is unlikely that the deliberate decision to not refer or consult is determined solely by the physician's own preference to treat the problem him or herself. One doubts that the majority of physicians are so strongly driven to treat psychiatric or psychological disturbance. Other factors may operate which may well force the physician into a treatment role or at least influence their decision to not refer.

"Attitudinal" factors

"Attitudinal" factors is the label applied to several variables which may affect or deter consultation in some way. These consist of physician's evaluation or opinion of the given services, biases or complaints about referral and consultation, and realistic concerns. Referral and consultation practices may be influenced by the physician's opinion of the usefulness or effects of the psychiatrists or psychologist's services.

Physicians give mixed but generally positive evaluations of the work of the psychiatric consultant. This is true of both the services offered (Cohen-Cole & Friedman, 1982; Fauman, 1981; Karasu, Plutchik, Conte, Siegel, Steinmuller & Rosenbaum, 1977a; Sasser & Kinzie, 1978-79; Shortell & Daniels, 1974; Van Dyke et al., 1980) and perceived effects (Van Dyke et al., 1980). Overall, physicians give highest value to services involving assistance with patient management (disposition, evaluation, advice on psychiatric medications, advice on ward management, and helping physician and staff understand the nature of the problem) while educational activities and staff liaison or mediating services are given least value (Cohen-Cole & Friedman, 1982; Fauman, 1981; Karasu et al., 1977a; Sasser & Kinzie, 1978-79). Fauman (1981) did find differences in evaluations between internists and surgeons with surgeon's ratings of the usefulness of various services being generally lower and further, indicating less need for consultation for given problems. These survey findings suggest that physicians are most interested in services which will help them treat or control difficult or problematical situations. This is best illustrated in the survey by Fauman (1981) who found that surgeon and internists rated emergency consultation for acutely agitated, violent, or psychotic patients as the most useful.

Schenkenberg et al. (1981) report similar findings in their evaluation of their psychological consultation service. Overall, the majority of physicians considered the consultation services to be a valuable component of the hospital. Physicians placed highest value on services involving evaluation for mental status or psychiatric disturbance, helping arrange for follow-up therapy, provision of emotional support for the patient, and

helping the staff understand the patient's psychological status. Here, however, assistance in ward management fell in the midrange in terms of perceived value. Liaison and teaching activities were not evaluated although the researchers did find that the majority of physicians felt psychology could have a potentially useful teaching role for the training of medical students or house staff. Nethercut and Piccione (1984) designed and administered a general survey addressing physicians' attitudes towards and utilizations of psychological services in medical settings. They found that 71% viewed clinical psychologists as being valuable resources in medical settings with 57% indicating they were familiar with services. Research psychologists were viewed as useful by only 38% of the physicians. Physicians indicated that they would be most likely to utilize services such as family counseling, brief crisis therapy, behavioral interventions, and patient education. Research activities and services such as program evaluation, statistical consultation, and research design were considered of least value. Overall, it seems logical to assume that the physician's perception of the usefulness or need for a given service would influence his or her decision to refer.

Physicians may also be influenced by biases they hold against referral or consultation. In a survey of British physicians, Mezey and Kellett (1971) found that the patient's dislike of being referred, the disadvantage to the patient of being labeled a psychiatric case, and lack of readily available facilities were the three most common reasons given by physicians for nonreferral to a psychiatrist. Similarly, Steinberg, Torem, and Saravay (1980) in examining the physician's resistance to consultation found that next to the belief that there was no psychiatric problem or that

psychiatry could not help, concerns over the patient's becoming upset or that the doctor-patient relationship would be harmed were the key factors in the failure to refer. Orleans et al. (1985) also found physicians reporting patient resistance to referral as a major obstacle to treatment of psychiatric disorders. Hull (1979b), however, in interviewing a group of physicians, found that the majority believed patients were less annoyed or frightened when a psychiatric referral is suggested and that the physician's own concern over the disadvantage to the patient or the reaction by the patient should not affect the choice to refer.

Physicians may also have specific complaints against consultation. Failure to provide adequate communication or follow-up appears to be one (Shortell & Daniels, 1974). Those writing "words of wisdom" to psychiatric consultants emphasize the need to provide follow-up to the physicians for referred patients (Pasnau, 1985). Such biases or complaints likely translate into a decision to not refer or to delay referral or consultation.

Finally, the physician may operate under constraints which affect his or her decision to refer or request consultation. It was noted earlier that the primary care physician may well be responsible for treating specific segments of the population who either cannot or will not approach the mental health care sector. Further, the demand for mental health services may well exceed the supply and there is a lack of available services particularly in certain geographic locales (Goldberg et al., 1976; Schurman et al., 1985). Economic concerns may also play a part where the physician does not refer because the patient cannot afford treatment (Orleans et al., 1985; Schurman et al., 1985). The patient may

actively resist referral to mental health services leaving it up to the physician to handle or treat as necessary (Goldberg et al., 1976; Fink et al., 1969; Orleans et al., 1985). Thus, the physician may not refer because there is no one to refer to, the patient cannot afford it, or the patient will not go.

Concerns specific for psychology

Psychology has its own concerns which must also be considered in this evaluation of deterrents to consultation and referral. The above work has largely focused on the recognition of emotional distress or disturbance, the "mental health" aspects of consultation. Further, this work has largely dealt with referral between the general physician and the psychiatrist or psychiatric services. It is also important to consider the question of whether the physician recognizes the need for or benefits of referral for what may be considered the psychological aspects of health care or for specific behavioral medicine or health psychology services. Are they apt to request psychological testing or assessment for given patients? Do they refer, for example, patients who require assistance in modification of lifestyle factors? The available data suggests a tentative "maybe." Schenkenberg et al. (1981) report neuropsychological evaluation was a frequent service of their consultation programs as did Horn (1983). Weinman et al. (1982) reported that 22% of a physician sample had or would refer patients for adjunctive biofeedback treatments. Nethercut and Piccione (1984) found that 88% of their sample considered psychological factors to have a significant role in certain medical illnesses and 81% rated psychological or behavioral interventions as beneficial in the treatment of some disorders. Whether this is translated into referral

practices is difficult to say. Sixty percent of this sample, as noted earlier, did indicate that they felt inadequately prepared to attend to the psychological aspects of illness. Schenkenberg et al. (1981) also found physicians to be aware of the importance of psychological factors to health care.

At the same time, Stabler and Mesibov (1984) report that health psychologists themselves report that a major difficulty in working in health settings is the physicians' lack of knowledge concerning effective use of the psychologist's skills and psychological issues in health care. Schofield (1979), too, notes that a major obstacle is that physicians are not aware of the applicable skills of the psychologist in health settings. The question may be less that of recognition of a given problem. It is obvious when the patient smokes, is overweight, or refuses to comply to a medical regimen. Here, the question may be whether a physician recognizes the need for or possibility of psychological intervention being a primary or adjunctive treatment.

Physician's attitudes specific to psychological consultation and referral are also important. Schenkenberg et al. (1981), Gabinet and Friedson (1980), and Wellisch and Pasnau (1979) report positive evaluations by physicians in their service. Billowitz and Friedson (1978-79) examined concordance rates to consultant's recommendations where one of the consultants was a psychologist, and found no difference in the degree of compliance to given recommendations. They report the majority of the suggestions were followed. This suggests that psychologists may receive tacit approval from physicians. Schenkenberg et al. (1981), however, also found approximately 23% of physicians indicating a mild to moderate belief

that the psychologist's lack of medical training is a limiting factor and 11% indicating inability to prescribe medication as an issue of importance. Nethercut and Piccione (1984), while reporting generally positive attitudes by physicians towards the importance of psychological factors in medical care, found 14% of physicians who had made referrals to psychologists in the past year reporting dissatisfaction with the service although, similar for psychiatry, it was largely due to lack of follow-up by the psychologist. These researchers also found differences among specialties. Surgeons rated psychological factors as less significant and behavioral or psychological interventions as less beneficial as compared to internists, family and general practitioners, and other specialties. In addition, surgeons reported making fewer referrals to psychologists and viewed the psychologist's lack of medical training as a greater hindrance to his or her work in a medical setting.

Many of the factors which affect referral to psychiatrists may generalize to work by psychologists. In addition philosophical, political, and economic factors may act to keep the psychologist a "stranger in a strange land" and deter or affect referral or consultation in some way. Physicians may hold their own "attitudinal set" which, while not negative towards psychology, may work to affect referral and consultation practices. Despite calls for a biopsychosocial model in health care it is still true that the majority of physicians operate under the fragmented, somatic disease model (Burstein & Loucks, 1982). Psychology and medicine operate in different fashions. The physician is trained to see him or herself as having sole responsibility and control in patient care, as being the ultimate authority in treatment decisions, and to focus on the use of

objective biomedical interventions for health care. The patient is expected to cede all responsibility to the physician and other health care professionals (McNamara, 1981; Tefft & Simeonsson, 1979). Politically, role conflicts between physicians and psychologists seem to be a common difficulty in health care practice (McNamara, 1981; Tefft & Simeonsson, 1979). With this, there is animosity between psychiatry and psychology which also may result in significant role conflict and competition between the two fields (Burstein & Loucks, 1982; Wallace & Rothstein, 1977). While psychiatrists note that there is significant prejudice and hostility against their field (Lipowski, 1967a), it may also be the case that physicians will opt to protect their own and refer to psychiatrists when services are needed. Alternatively physicians, particularly the older generation, may view psychologists as "junior psychiatrists" (Schofield, 1979, p. 461) and fail to utilize the psychologists own unique services effectively. As noted earlier, Stabler and Mesibov (1984) found physicians lack of knowledge about psychological services to be considered a major problem by health care psychologists. Economic factors may also be significant. While initial predictions for insurance and other forms of health care funding were optimistic (Schofield, 1969) they have not come to pass. In fact, economics are a major concern for the entire health care sector. Thus, many factors may combine to influence referral and consultation practices by physicians. However, not all are necessarily negative as it has also been suggested that patients may be more accepting of psychological consultations (Lothstein, 1977). In summary, psychology has its own concerns in considering consultation and referral by physicians.

Synthesis and Proposed Study

The nature and practice of psychology as a health care profession is broad ranging, the actual and potential roles and functions of the "health care psychologist" are many and varied. This psychologist, whether viewed as a "generalist" or "specialist", can and does make valuable contributions to health care sector by providing standard mental services, components of patient care, or primary treatment of a given disorder. Access to this professional, however, is often gained through another key component of the health care system--the physician. Physician referral or consultation is a key means through which psychologists obtain clients for either standard clinical services or more particularly health psychology interventions (Nethercut & Piccione, 1984). Physician referral and consultation is often the first step in involving the psychologist in health care.

In considering the available data, examining the physician's referral and consultation practices, several problems are apparent. First, the majority of research deals with psychiatric referral and consultation focusing largely on mental health services. It is important to examine referral and consultation practices specific to psychological services. On one hand, psychologists may be viewed as similar to psychiatrists. The descriptions by Schenkenberg et al. (1981) and Gabinet and Friedson (1980) suggest that this may be the case. On the other, the reasons physicians elect to refer or consult with psychologists may be qualitatively different from that of referral to a psychiatrist. The psychologist's strength in testing and assessment is cited as a major contribution to the health care system (Lothstein, 1977). As indicated earlier, it is the most

frequently requested function for pediatric psychologists. Thus, physicians may turn to a psychologist when assessment questions arise. Psychology, as described in a prior section, can also make specific and unique functions to health care. It is important to determine if physicians are indeed ignorant (or unenlightened?) of these services and functions as suggested by Schofield (1979) and Stabler and Mesibov (1984) or are aware of the work of the "health care psychologist." Nethercut and Piccione (1984) provided some initial information but far more is needed. The present approach to studying these practices also leaves much to be desired. Research has considered referral patterns, characteristics of referred patients, and evaluations of consultation and liaison services. While the work provides a general idea of present utilization patterns, it does not address the basic question of why a physician elects to request referral or consultation. One may not have the "true" picture of referral and consultation practices. For example, the literature indicates that a common reason for consultation is for depression. Is this one of the major reasons for consultation or simply the most frequent? Useful information could be gathered by taking a straightforward approach as seen in the work by Fauman (1983) and simply ask: "Why?" "What are the reasons *you* refer?"

In addition to examining the reasons for referral, it seems equally important to consider the factors which may deter or affect psychological referral and consultation. Psychiatry has considered some possible factors and it is likely that these also exist for psychology. The primary care physician may believe his or her patient will become upset if referral is suggested or be concerned that his or her relationship with the patient

will be adversely affected. The physician may minimize the patient's psychosocial difficulties or believe that psychological intervention will be of little benefit to the patient. Further, psychology may have its own unique considerations which may affect a physician's choice to refer or consult. Philosophical, political, and economic factors may influence a physician's decision. The physician, operating under the traditional medical model, may be reluctant to give up his or her authority for treatment. He or she may not believe that the patient can or should assume responsibility for health care. When the physician does elect to refer, he or she may prefer to work within the medical profession and consult with a psychiatrist. The physician may choose not to refer because the patient's insurance carrier or other funding source for health care will not reimburse for psychological interventions and the individual cannot afford to pay for treatment.

The rationale for this study is simple but powerful. As psychology strives to increase its involvement in the health care system, it must also attend to how it can effectively interact in this system. At present psychologists, whether labeling themselves health care psychologists or simply psychologists, have neglected to consider that this involvement is part of a process, a process which is first initiated by physicians. Our field suffers from the lack of data examining how this process works. Researchers may develop all the powerful behavioral medicine techniques they wish; however, in the long run, such techniques will be useless if they fail to consider how these techniques will be applied in the real world. By educating physicians to psychology's possible contributions, psychology can insure itself of a significant place in the health care

system. This first step in this educative process, however, involves determining what needs to be taught.

The purpose of this proposed study is to determine the key reasons physicians request services of psychologists and with this, to determine the factors which deter referral. It will be focused on services and functions for adult patients, this is to avoid project complexity. This project could be approached in several possible ways. As an example, decision making analyses and case vignettes have been considered. However, the present lack of empirical "baseline" data necessitates a study that is exploratory in nature, one which provides basic information. While this author is specifically interested in referral questions as they pertain to health psychology interventions the project itself will involve a more global analysis and a broad range of possible reasons for requesting services will be considered. A group of physicians and medical residents will be asked to give ratings of reasons for referral and ratings of factors which may deter their decision to refer.

While the nature of the study is exploratory it is still possible to offer "hypotheses" regarding expected findings. The two variables of interest are the ratings of possible reasons for referral and the ratings of factors which influence a physician to elect to not refer. These will be analyzed for all physicians, by clinical specialty, and by level of training (practicing physician or medical resident). The expected findings are described below

Reasons for referral

Potential functions of the health care psychologist may be divided into four major categories: 1) assessment and evaluation; 2) clinical

interventions consisting of a) general mental health services and b) behavioral medicine or services; 3) indirect clinical services; and 4) liaison-teaching activities. The rationale for this classification is developed in the methods section.

It is predicted that physicians as a group will give highest rating to assessment and evaluation services. "Testing" may be the major identifier for the psychologist in the medical world. It is possible that physicians see this function as the psychologist's key contribution to health care. The next highest rating will be given for clinical services for either severe problems (severe anxiety or depression, suicide attempts, or psychosis) or the troublesome patient (the individual presents with somatic complaints and all organic causes have been ruled out). Literature, largely in the area of psychiatric consultation, indicates that physicians request referral or consultation for severe problems or difficult patients. This same tendency should generalize to psychological referral or consultation. Physicians are expected to give low ratings to health psychology/behavioral medicine services. This author predicts that physicians fail to consider the possibility of using psychological intervention for primary or adjunctive treatment for a given medical problem. She will attribute this to a benign ignorance rather than deliberate choice. Physicians will also give low ratings to staff liaison and teaching services. The literature indicates physicians generally hold little value for such services unless they pertain to a specific problem. One expects to see this attitude maintained with this sample.

There are predicted to be significant differences in ratings among the three clinical specialties. Overall, individuals in family practice

(residents and practicing physicians) will show the "broadest" model for psychological referral and consultation with their ratings being consistently higher than surgeons and internists. Clearest evidence for this will be seen in the referral practices for health psychology and behavioral medicine services. Here, family practitioners will indicate higher ratings for such services as compared to other specialties. With this, this author will also predict differences between family practice physicians and family practice residents with residents showing higher rankings for assessment and evaluation services, mental health clinical services and problems, and health psychology/behavioral medicine services and problems. Family practice may be considered the most "psychological" of all medical specialties. Such physicians are likely to be more aware of psychosocial issues and more attuned to utilizing psychological services. The residents to be sampled are being trained in Engel's (1977) biopsychosocial model and are thus expected to be strongest in this regard. Surgeons will indicate consistently lower ratings when compared to the other two specialties indicating referral for only their difficult or troublesome patients. This follows from the literature which indicates that surgeons fail to utilize consultation and referral services in an optimal manner.

Factors which deter referral

Here, it is suggested that factors which deter referral may be divided into two categories: 1) a general category consisting of factors which pertain to both psychiatry and psychology; and 2) a "psychological" category consisting of philosophical, political, and economic factors specific to psychology. Again, rationale for this classification is

developed in the methods section.

All physicians will rate three factors as of utmost importance: 1) the patient will become upset by the referral or consultation; 2) the physician/patient relationship will be hurt by the referral; and 3) psychologists do not provide them with adequate follow-up or communication following referral or consultation. The literature suggests that these are major deterrents for psychiatric and psychological consultation and referral. These factors will be followed by factors which are hypothesized to represent the philosophical differences between the medical and the biopsychosocial models. Physicians will indicate that they don't refer because medical problems must take precedence, because they lack the time to consider such issues and determine referral needs, and that the patient can't or won't assume the responsibility required of psychological treatment. Finally, a political factor will also emerge as significant with physicians indicating that they prefer to refer to psychiatrists. Economic considerations, while of possible consideration, will not emerge as a major factor. This author has doubts that these will be a salient concern to the average physician.

Differences among clinical specialties are expected to emerge. These will appear in two specific areas: ratings of general concern and ratings of philosophical factors. Family practice physicians will show lowest ratings for the three main general factors and for all of the philosophical considerations. Family practice residents will also show the lowest ratings for the above. However, family practice physicians will give higher rating to their choice to treat a given psychological or behavioral problem themselves as compared to the other two specialties. Again, as

noted earlier, the family practice specialty is a "psychological" specialty and such physicians are likely to be more comfortable dealing with psychological referral and consultation than other specialties. At the same time, they also may feel more able to deal with problems themselves.

METHOD

Subjects: Initial Target Population

The "Psychological Services Information Survey" was distributed to 262 physicians in the Des Moines and Ames, Iowa area. This target population consisted of four groups: 1) 75 physicians in internal/general medicine; 2) 82 physicians in surgery; 3) 75 physicians in family practice; and 4) 30 residents in family practice. Physicians in the family practice and internal medicine groups held either M.D. or D.O. degrees. All surgeons and family practice residents held M.D. degrees.

The 232 practicing physicians (approximately 70 in each group) were selected from the 1983-84 Des Moines and Ames area telephone books and mailed the survey. Selection of the Des Moines area physicians was generally made with the criterion that the individual be affiliated with Iowa Lutheran Hospital or Iowa Methodist Medical Center or both. Psychologists within each hospital agreed to try to assist (informally) in facilitating return rates of the inventory.

The target population of 30 family practice residents came from the Broadlawns Medical Center Family Practice Program. This survey was administered on-site to the residents with the permission of the Broadlawns administration.

The surveys were distributed to as large a number as possible for each target group in order to compensate for the typically low return rates found in doing such data collection. There are uneven numbers for each target group because there are differences in number available for each specialty. Overall, this author hoped to obtain a final sample of 30 surveys for each group.

Participation for all subjects was on a voluntary basis.

Instrument

Development

The study questionnaire "The Psychological Services Information Survey" was developed in three steps.

Initial items for the survey, specifically the sections examining reasons for and factors against psychological referral and consultation, were derived from analysis of the literature and personal interviews with four psychologists and one physician. Three of the psychologists were employed in health care settings, two (one male and one female) as psychologists in general medical hospitals and one (male) as a psychologist in a family practice clinic. One psychologist (female) was employed in a community mental health center. A fifth psychologist (male) employed in a general hospital, provided input regarding factors which may act to deter referral and consultation. The physician (female) was employed on the staff at the Student Health Center at Iowa State University. The individuals were selected for interviews because they were easily accessible and agreed to being interviewed. The psychologists were asked to describe the reasons they perceived why physicians elected to refer or consult with them and the reasons they believed acted to deter such referral or consultation. Each psychologist was also asked to indicate reasons he or she felt physicians should request services of a psychologist. The physician was asked to indicate reasons why she referred or consulted with psychologists, reasons why she would choose not to refer or consult, and why she might elect to refer or consult with a psychiatrist over a psychologist.

The literature and the interviews suggested four general categories of referral and consultation activities. These were as follows: 1) assessment and evaluation; 2) clinical services consisting of a) general mental health services and b) behavioral medicine or health psychology services; 3) indirect clinical services; and 4) liaison and teaching activities. Statements were developed which were considered to represent potential services and patient problems for each of these categories. These statements were drawn from the literature--specifically the surveys of Karasu et al. (1977a), Nethercut and Piccione (1984), and Schenkenberg et al. (1981)--and information from the above interviews.

Similarly, material from the interviews and literature indicated two major categories of reasons which may deter referral and consultation with psychologists: a general category consisting of factors which pertain to both psychology and psychiatry and a "psychological" category consisting of reasons which specifically pertain to psychological referral and consultation. This second category was divided into three subcategories of philosophical, political, and economic factors. Items for the first category were drawn from the studies of Mezey and Kellett (1971) and Steinberg et al. (1980). Items for the second category were developed by this author.

An initial version of this inventory was tried out with physicians from the Student Health Service at Iowa State University. These physicians were chosen because they were easily accessible and an administrator of the service agreed to allow the individuals to participate. This pilot version was also given to colleagues, psychologists in general hospitals,

and one psychologist in a family practice clinic. These individuals were asked to carefully critique the inventory particularly in terms of content and clarity of directions and how they felt physicians would react to such an instrument.

Results from the pilot project and the critiques were evaluated, items and directions were edited or eliminated as needed, and the final version of the inventory was created. A key concern for the initial version was its length. It was suggested that it could prove a significant deterrent to individuals completing the survey. Thus various items, judged to be of lesser importance to the study, were eliminated. Further, the category of indirect clinical services was completely eliminated. In reviewing this section, dealing with assistance in the patient's disposition and advice on psychotropic medication, it was decided it was specific to psychiatric referral and consultation. Thus, although it was indicated as a potential service area by the literature, it did not seem relevant to this study.

Final version

The final version of the "Psychological Services Information Survey" consists of four sections:

General information (Section I) This section requests general information such as gender, year of graduation from medical school, clinical specialty, present position, and work setting.

Past use of psychological services (Section II) This section assesses history of use of consultation and referral, type of services used, and evaluation of these services.

Reasons for referral and consultation (Part I of Section III) This section is designed to assess reasons why physicians elect to refer or

consult with a psychologist. As noted earlier, information from the literature review and interviews with psychologists and a physician, suggested various categories of such reasons. For the final version of the survey four general categories were selected. These were as follows:

I. Assessment and Evaluation. This category consists of the items representing various forms of testing and diagnostic evaluation services such as personality assessment or intellectual evaluation.

II. Clinical Services. This category is made up of items representing various forms of psychological interventions involving patient or family contact or various forms of behavior or emotional problems which might necessitate referral or consultation. Examples include marital or couples counseling, severe depression or anxiety, and somatization.

III. Behavioral Medicine/Health Psychology Services. Similar to the above category, this consists of items representing psychological interventions with patient or family contact or emotional or behavioral problems but are specific to services or concerns which directly pertain to work with medical patients or medical problems. Examples here include alcohol and drug abuse, biofeedback, and adjustment to hospitalization.

IV. Liaison and Teaching Services. This category consists of services involving providing information or education to a patient's caregivers so that they may work more effectively with a specific patient or all patients.

Statements were developed to represent selected aspects of each of these categories. These statements consisted of either psychological functions or potential problems which may merit the services of a psychologist. These categories and their representing items are presented

in Table 1.

For each item, the subject is asked to both indicate if she or he had or would request psychological referral or consultation for it and to rate, utilizing a 1 to 99 scale, its degree of importance as a reason for referral or consultation. In addition, subjects are also asked to report additional reasons, if any, for requesting services of a psychologist.

Factors deterring psychological referral and consultation (Part II of Section III) This section is designed to assess factors which may deter psychological referral and consultation. As noted earlier, this section consists of two categories: a "general" category consisting of reasons pertaining to both psychology and psychiatry and a "psychological" category consisting of philosophical, political, and economic factors which specifically pertain to psychology. Again, statements were developed which were believed to represent each of these categories. These categories and their representative items are shown in Table 2.

For each statement, subjects are asked to rate, using a 1 to 99 scale, the degree of importance for this item as a factor affecting their decision to refer or not refer. Subjects are also invited to list additional reasons for electing to not refer.

A mock-up of this inventory is presented in Appendix A.

Procedure

Mail inventory

The implementation of the mailing of the inventory was a modification of the Total Design Method developed by Dillman (1978), the modification being adopted for cost containment purposes. Dillman utilizes three follow-up mailings in his method; here, the third follow-up

Table 1. Reasons for psychological referral and consultation

I. Assessment and Evaluation
   1. Intellectual Evaluation (2)
   2. Neuropsychological Evaluation (11)
   3. Personality Assessment (5)
   4. Psychodiagnostic Testing & Evaluation (17)
   5. Assist in determining appropriateness for given treatment (30)

II. General Clinical Services
   1. Mild depressive symptoms (1)
   2. Severe depression (19)
   3. Mild symptoms of anxiety and tension (24)
   4. Symptoms of severe anxiety and tension (14)
   5. Psychosis (25)
   6. Recent suicide attempt (8)
   7. Patient presents with somatic symptoms, all organic causes have been ruled out (20)
   8. Suspect patient is a victim of an abusive home situation (31)
   9. Prolonged grief reaction (10)
   10. Adjustment to major life event (divorce, job change, etc.) (21)
   11. Family counseling, marital or couples counseling (28)

III. Behavioral Medicine/Health Psychology
   1. Alcohol/drug abuse (4)

Note. Numbers in parentheses indicate where the item appears in the inventory.

Table 1 Continued

2. Sexual dysfunction/sexual concerns (15)
3. Eating disorder (Bulimia, anorexia nervosa, obesity, etc.) (12)
4. Smoking cessation (18)
5. Pain management (6)
6. Management of hypertension (27)
7. Stress management (3)
8. Patient refuses to comply to medical regimen (26)
9. Assist in adjustment to major illness or injury (23)
10. Patient is terminally ill (29)
11. Counseling/support for patient's family (22)
12. Biofeedback (9)
13. Adjustment to general surgery (32)
14. Adjustment to hospitalization (7)
IV. Liaison-Teaching Activities
1. Assist in management of patient (13)
2. Provide education on psychological/behavioral health issues (16)

Table 2. Factors which may deter psychological consultation and referral

I. General Factors (Psychology/Psychiatry)
1. The patient will become upset by the psychological referral or consultation (1)
2. Referral or consultation will negatively affect my rapport/relationship with the patient (12)
3. The given psychological or behavioral disturbance is not serious enough to warrant referral or consultation (14)
4. I prefer to treat psychological/behavioral problems myself (13)
5. There is a shortage of available psychological services for psychological referral and consultation (2)
6. Psychologists do not provide adequate communication or follow-up after referral or consultation (5)
7. Response to my referral or consultation request is too slow (16)
8. Psychological or behavioral interventions are of little benefit for my patients (8)
II. Psychological Factors
A. Philosophical
1. The medical problems I see must take precedence over psychological issues in treatment (9)
2. One individual should maintain sole charge of a patient's treatment regime (3)

Note. Numbers in parentheses indicate where the item appears in the inventory.

Table 2 Continued

3. Patients will not follow through on psychological referral (6)
4. I don't have the time to consider psychosocial issues and determine the need for referral and consultation (10)
B. Political
1. I prefer to refer to psychiatrists (11)
2. The patient prefers to receive psychiatric referral and consultation (15)
3. Psychotropic medication is more cost-effective in treating psychological problems (4)
C. Economic
1. The patient's insurance will not reimburse for psychological services (7)

(a cover letter and a questionnaire sent by certified mail) was eliminated.

The initial mailing of the survey took place on a Tuesday as recommended by Dillman. It consisted of a signed cover letter on ISU letterhead stationary (see Appendix B), the inventory, and a preaddressed postage-paid envelope. It was assembled and prepared according to directions provided by Dillman. One week later all subjects received a post card reminder (see Appendix C). This was intended to thank subjects who returned the inventory and to remind those who did not. Three weeks from the initial mailing a new cover letter and a replacement questionnaire was sent to all nonrespondents. The new cover letter (see Appendix D) was shorter than the first, it indicated that the respondent's inventory had not been received and appealed for it to be completed and returned. It, too, was signed and on ISU letterhead stationary. The preparation and mailing of this follow-up followed that of the first mailing.

Distribution to family practice residents

The inventory was distributed on-site to the thirty family practice residents at the Broadlawns Family Practice Clinic in Des Moines by the staff psychologist. Subjects were given the inventory and a cover letter (see Appendix E). They were asked to return the survey in an accompanying preaddressed postage-paid envelope.

RESULTS

One hundred and six of the 232 surveys mailed to the practicing physicians were returned yielding an overall response rate of 46%. Thirty-three surveys were returned by family practitioners (response rate 44%), 32 by internists (response rate 43%), and 40 were returned by surgeons (response rate approximately 49%). In addition, for the family practice group, one subject who was originally identified as part of the surgeon subsample listed himself as a family practitioner and one survey was "requested" and completed by an unidentified family practitioner in the Des Moines and Ames area. This brought the total survey number to 35 for the family practice sample. Twenty-five of the surveys were eliminated from the final analysis, five from the family practice subsample, five from the internist subsample, and fifteen from the surgeon subsample. The modal reason for elimination was a report that the subject referred only to psychiatrists with the individual either appearing to complete the survey in terms of psychiatric referral and consultation or not completing the survey at all. Other reasons included a response of "no referrals" and failure to complete the rest of the survey, the survey being significantly incomplete or having largely unusable responses, and failure to meet subject criteria (e.g., listed as retired or in another specialty area not applicable to this study). Although these surveys were eliminated from final analysis, they did yield some interesting information from comments which will be discussed later.

Only nine of the 30 Broadlawns family practice residents returned the surveys yielding a response rate of 30%. Because of the small number for this group, it was eliminated from final analysis. Their survey results

are reported in Appendix F. Overall, 115 of the 262 surveys were returned yielding a response rate of 44%.

The final sample consisted of 82 practicing physicians (approximately 35% of the original sample) from the Des Moines and Ames area, 30 family practitioners (approximately 38%), 27 internists (approximately 37%), and 25 surgeons (approximately 31%). Of the 82 subjects, 75 were male (92% of the total sample), 5 were female (6% of the sample), and 2 did not list their gender. They had a mean age of 44 with a range of 29 to 70 years. Sixty-six subjects had M.D. degrees, 15 had D.O. degrees, and one did not indicate the type of degree although it is likely it is an M.D. The majority of subjects graduated from medical school during the period of 1976 to 1980 with actual year of graduation ranging from 1940 to 1981. The three clinical specialties did not differ widely in these basic demographics, the one exception being type of medical degree. Chi-square analysis for degree-by-specialty area revealed a significant difference, X^2 (2, $\underline{N}$ = 81) = 26.63, $\underline{p} < .01$, with family practitioners being evenly divided between M.D. and D.O. degrees and the other specialties largely holding M.D. degrees.

All subjects listed their present position as that of staff or private physician with 67 reporting their principle work setting as private practice, nine as a general hospital or clinic, and six citing other settings (combinations of private practice and academic work, private practice and health maintenance organization, academic work, and college clinic). Clinical specialties differed for type of work setting with more family practitioners working in mixed "other" settings, X^2(4, $\underline{N}$ = 82) = 11.70, $\underline{p} < .05$. The subjects indicated affiliation with one or more

hospitals in the area, most listing at least one, with Iowa Methodist and Mercy Medical Centers being most frequently cited. While there were some differences among hospital affiliations for the three specialty areas, they do not seem a major cause for concern and are not considered significant.

Sixty-nine subjects (84%) indicated they had made referral or requested psychological consultation during the past year, thirteen subjects (16%) reported no use of such services during this period. Chi-square analysis revealed a difference in referral practices among specialties, $X^2(2, N = 82) = 8.43$, $p < .05$, with family practitioners reporting more frequent referrals. The average number of reported referrals was 11 with a range of one to 50. The three groups did not differ in number of referrals made. All subjects reporting utilizing a full range of psychological services as listed in the survey with the most frequent being that of a psychologist in private practice and the least frequent being that of a school psychologist. Approximately one half of the subjects (39 or 48%) reported they utilized one particular individual group for referral or consultation with the other half indicating no preference. Of those reporting a preference the most frequently cited was that of a psychologist in private practice followed by a psychology department in a general hospital.

The mean rating of degree of satisfaction with psychological referral and consultation was 4 (M=3.896) for the entire sample which indicated they were "somewhat satisfied" with referral or consultation to date. Ratings ranged from 2 "somewhat dissatisfied" to 5 "satisfied". There were no differences in evaluation among the three clinical specialties. Table 3

Table 3. Subject characteristics and referral practices-entire group

Subject characteristics			
Gender		n	%
Male		75	92
Female		5	6
Age			
M	43.92		
SD	11.22		
Range	29 to 70		
Degree		n	%
M.D.		66	81
D.O.		15	18
Clinical specialty		n	%
Family practice		30	37
Internal medicine		25	31
Surgery		11	13
Other [a]		16	19
Referral and consultation practices			
Past history of use		n	%
Yes		69	84
No		13	16

Note. %=percentage of total sample N=82. Table does not include missing or unknown responses.

[a]Refer to Table 4 for specific listing of specialties.

Table 3 Continued

Number referred	
M	11.14
SD	10.27
Range	1 to 50
Rated degree of satisfaction	
M	3.90
SD	1.08
Range	2 to 5

presents a summary of background statistics for the entire group, Table 4 presents these data broken down by group.

The nature of this study is largely exploratory and is designed to determine present referral and consultation practices rather than test specific hypotheses. While predictions have been made regarding expected findings, it seems more appropriate to consider the investigation of the results as data examination rather than data analysis with the specific methods chosen to facilitate this examination.

The two areas examined are the ratings of reasons for referral and consultation (Part I of Section II) and ratings of factors which may deter referral (Part II of Section II of the inventory). These areas are examined in the following two sections. Initially, each was to have been examined for physicians as a group and by clinical specialty. The Broadlawns residents were originally intended to be included in this investigation; however, as noted earlier, because of the small number of completed surveys for this group ($n=9$), it was dropped from the final analysis.

For each rating section, the mean and standard deviation was computed for each item rating and then rank ordered by mean rating. These rankings were then presented and examined for general information and expected findings.

A key point of interest was the difference in referral practices (both reasons for referral and deterrents to referral) among specialties. Mean item ratings were plotted by scatterplots for the various groups. The use of scatterplots was selected over performing t-tests because it was believed such plots would provide more visually meaningful data. Six

Table 4. Subject characteristics and referral practices-by specialty

Subject Characteristics

	Gender				Age		Degree							
	Male		Female				M.D.		D.O.					
	n	%	n	%	M	SD	n	%	n	%	FP	IM	S	Other[a]
Family Practice	24	80	4	13	42.66	11.77	15	50	14	47	30	-	-	-
Int. Med	29	96	1	4	41.31	10.69	26	96	1	4	-	25	-	2
Surgery	25	100	0	-	48.29	10.20	25	100	0	0	-	-	11	14

Referral Practices

	Past History of Use				Number Referred		Rating of Satisfaction	
	Yes		No					
	n	%	n	%	M	SD	M	SD
Family Practice	29	97	1	3	13.21	10.39	4	1.17
Int. Med	23	85	4	15	11.80	11.97	3.81	1.06
Surgery	17	68	8	32	6.44	5.17	3.86	1.01

Note. %=percentage of specialty subsample; n for Family Practice = 30; n for Internists = 27; n for Surgeons = 25. Table does not include missing or unknown responses.

[a]Internists listed as cardiology, medical oncology and internal medicine; Surgeons listed as otolaryngology, orthopedics, cardiac surgery, colon and rectal, urology, and neurosurgery.

scatterplots were plotted, one for mean ratings of referral and one for ratings against referral, for each of three group comparisons. These comparisons are as follows; 1) family practice physicians vs. internists; 2) family practice physicians vs. surgeons; and 3) internists vs. surgeons. Differences among groups were further examined by one-way analyses of variance for the item ratings in each section. For this latter analysis, the item ratings were first transformed using a probit procedure. Additional analyses, as suggested by the data, consisted of correlational analyses and chi-square analyses.

Analysis I: Reasons for Referral and Consultation

This section, as described earlier, asked for physicians to rate, utilizing a 1 to 99 scale, the importance of various problems or services as reasons to refer or consult with a psychiatrist. While the overall intent of this study is exploratory and the data will be presented as such, certain predictions have been made regarding the nature of the expected findings. Before examining the results, however, a major cautionary point must be made. The final sample size is regrettably small (N=82), a concern that is further heightened by the fact that few subjects responded to all items. The average number of subjects responding to any given item is the same (n of approximately 60) however it is important to attend to the actual number of respondents for each as the number may well be small and further, to bear in mind the rather inconsistent response patterns of the subjects. This is particularly important when examining results for each of the three groups as the number of subjects responding to certain items may become particularly small. In essence, interpretation of all findings must be made with caution.

Overall, it was expected that physicians as a group would place highest importance on psychological assessment and evaluation services followed by "general" mental health functions specifically referral and consultation for severe problems (e.g., severe anxiety, severe depression, suicide attempt, or psychosis) and for the somatizing patient. Conversely, physicians were predicted to place least importance on behavioral medicine or health psychology functions and liaison-teaching activities.

Examination of the rank ordering of the mean ratings of the items for this section indicate that these predictions were only partially upheld. The items, their category of classification, and mean and standard deviations of their ratings are listed in order of their mean rating and presented in Table 5. Visual perusal of this table suggests that items with the highest ratings were for "general" clinical services or problems and items with the lowest ratings were in the health psychology-behavioral medicine area. Items in the middle were a mixture of assessment and evaluation functions, general clinical services and problems, and health psychology-behavioral medicine functions. More specifically, referral and consultation for severe depression, recent suicide attempt, alcohol and drug abuse, eating disorders, suspicion of an abusive home situation, and severe anxiety and tension were ranked highest. These items, with the exception of eating disorders and alcohol and drug abuse, are considered representative of the "general" clinical service area and may be defined as severe problems. The ratings of assessment and evaluation functions fell in the middle of ranking and the ratings themselves were generally in the "average" range. Management of hypertension, adjustment to general surgery, and adjustment to hospitalization were of the lowest rankings.

Table 5. Ratings of reasons for referral and consultation-entire group

Rank	Item	Category	Rating M	Rating SD	n	%
1.	Severe depression (19)	General	73.46	30.18	56	68
2.	Recent suicide attempt (8)	General	70.02	33.28	56	68
3.	Alcohol/drug abuse (4)	Health	67.52	27.99	63	77
4.	Eating disorder (12)	Health	66.12	30.23	61	74
5.	Suspect patient is victim of abusive home situation (31)	General	65.64	32.83	55	67
6.	Symptoms of severe anxiety and tension (14)	General	64.76	25.86	63	77
7.	Adjustment to major life event (21)	General	63.80	25.20	59	72
8.	Sexual dysfunction/sexual concerns (15)	Health	63.47	25.02	62	76
9.	Psychodiagnostic testing & evaluation (17)	Assessment	62.95	31.74	59	72
10.	Family/marital or couples counseling (28)	General	61.79	27.97	65	79
11.	Patient presents with somatic symptoms, all organic causes have been ruled out (20)	General	60.66	23.74	61	74

Note. %=percentage of total sample N=82. Number in parentheses is item survey number.

Table 5 Continued

Rank	Item	Category	Rating M	Rating SD	n	%
12.	Stress management (3)	Health	59.83	28.70	64	68
13.	Counseling/support for patient's family (22)	Health	59.53	24.20	61	74
14.	Prolonged grief reaction (10)	General	58.35	25.47	58	71
15.	Neuropsychological evaluation (11)	Assessment	57.14	32.47	56	68
16.	Assist in adjustment to major illness or injury (23)	Health	56.92	23.87	52	63
17.	Psychosis (25)	General	56.60	36.83	48	59
18.	Biofeedback (9)	Health	55.70	24.70	64	78
19.	Personality assessment (5)	Assessment	53.64	29.43	58	71
20.	Pain management (6)	Health	52.83	25.57	63	77
21.	Smoking cessation (18)	Health	50.07	32.45	58	71
22.	Intellectual evaluation (2)	Assessment	49.60	31.06	63	77
23.	Patient is terminally ill (29)	Health	43.63	29.39	49	60
24.	Education on psychological/behavioral health issues (16)	Liaison	37.62	29.22	52	63

Table 5 Continued

Rank	Item	Category	Rating M	Rating SD	n	%
25.	Assist in management of patient (13)	Liaison	33.84	24.31	51	62
26.	Patient refuses to comply to medical regimen (26)	Health	30.53	28.03	45	55
27.	Mild depressive symptoms (1)	General	30.20	25.69	56	68
28.	Mild symptoms of anxiety & tension (24)	General	30.19	24.17	52	63
29.	Adjustment to hospitalization (7)	Health	24.13	25.03	47	57
30.	Assist in determining appropriateness for given treatment (30)	Assessment	20.27	20.08	44	54
31.	Adjustment to general surgery (32)	Health	17.77	17.66	44	54
32.	Management of hypertension (27)	Health	17.23	19.52	46	56

All are considered representative of health psychology-behavioral medicine functions.

Thus, referral and consultation for severe mental health problems were considered important although they were unexpectedly the highest in ranking. With this, referral and consultation for the somatizing patient was ranked in the upper third (ranked 11th). These findings generally follow expectations. The one exception here is referral and consultation for psychosis which received an average rating and fell in the middle of the ranking (ranked 17th). Also in line with predictions, items representing the area of behavioral medicine and health psychology functions were generally lowest in the ranking and rankings for liaison-teaching activities fell in the lowest third of the ranking. However, in contrast to what was expected, assessment and evaluation functions generally fell in the middle of the ranking and were rated only of average importance. Further, two health psychology and behavioral medicine items, referral and consultation for eating disorders and alcohol and drug abuse were among those highest ranked. This does not follow initial expectations although, in reconsidering these items, they could well be classified as severe clinical problems rather than "health psychology" concerns.

Mean ratings of items for each of the three speciality groups typically follow the ranking pattern of the full sample. These items are listed in order of their rating and presented, along with their category of classification, mean and standard deviations of their rating, and number and percentage of subjects responding to each item for each group in Tables 6, 7 and 8 respectively. Visual analysis again indicates that referral and consultation for general clinical services largely for severe mental health

Table 6. Ratings of reasons for referral and consultation-family practice physicians

Rank	Item	Category	Rating M	SD	n	%
1.	Recent suicide attempt (8)	General	78.60	29.00	25	83
2.	Severe depression (19)	General	78.00	27.86	23	87
3.	Suspect patient is a victim of abusive home situation (31)	General	75.73	25.39	22	73
4.	Eating disorder (12)	Health	74.40	28.61	25	83
5a.	Family counseling/marital or couples counseling (28)	General	72.00	22.13	26	87
5b.	Psychodiagnostic testing & evaluation (17)	Assessment	72.00	26.61	23	77
6.	Alcohol/drug abuse (4)	Health	71.96	26.56	26	87
7.	Sexual dysfunction/sexual concerns (15)	Health	69.92	25.36	25	83
8.	Patient presents with somatic symptoms, all organic causes have been ruled out (20)	General	68.95	20.01	21	70
9.	Stress management (3)	Health	64.46	25.87	22	73
10.	Symptoms of severe anxiety & tension (14)	General	64.33	27.54	24	80

Note. %=percentage of family practice subsample n=30. Number in parentheses is item survey number.

Table 6 Continued

Rank	Item	Category	Rating M	Rating SD	n	%
11.	Adjustment to major life event (21)	General	64.29	17.98	21	70
12.	Counseling/support for patient's family (22)	Health	61.70	18.16	23	77
13.	Psychosis (25)	General	61.50	35.59	20	67
14a.	Personality assessment (5)	Assessment	58.48	24.28	23	77
14b.	Prolonged grief reaction (10)	General	58.48	26.39	23	77
15.	Assist in adjustment to illness or injury (23)	Health	57.50	21.44	18	60
16.	Neuropsychological evaluation (11)	Assessment	56.43	27.80	21	70
17.	Pain management (6)	Health	54.64	25.24	25	83
18.	Intellectual evaluation (2)	Assessment	53.00	25.04	23	77
19.	Biofeedback (9)	Health	52.88	25.67	24	80
20.	Smoking cessation (18)	Health	52.26	29.55	23	77
21.	Patient is terminally ill (29)	Health	48.72	31.15	18	60
22.	Assist in management of patient (13)	Liaison	40.76	23.49	21	70

Table 6 Continued

Rank	Item	Category	Rating M	Rating SC	n	%
23.	Education on psychological/behavioral health issues (16)	Liaison	38.89	26.77	18	60
24.	Patient refuses to comply to medical regimen (26)	Health	31.06	28.86	17	57
25.	Assist in determining appropriateness for given treatment (30)	Assessment	29.47	21.27	17	57
26.	Mild symptoms of anxiety and tension (24)	General	27.50	18.65	18	60
27.	Mild depressive symptoms (1)	General	23.70	21.11	20	67
28.	Management of hypertension (27)	Health	21.88	21.16	17	57
29.	Adjustment to hospitalization (7)	Health	21.22	16.88	18	60
30.	Adjustment to general surgery (32)	Health	18.35	16.54	17	57

Table 7. Ratings of reasons for referral and consultation-internists

Rank	Item	Category	Rating M	SD	n	%
1.	Psychodiagnostic testing & evaluation (17)	Assessment	70.39	26.15	23	85
2.	Neuropsychological evaluation (11)	Assessment	69.95	31.74	20	74
3.	Adjustment to major life event (21)	General	68.88	25.98	25	93
4.	Severe depression (19)	General	66.95	31.51	19	70
5.	Symptoms of severe anxiety & tension (14)	General	66.30	26.73	23	85
6.	Stress management (3)	Health	65.35	27.55	26	96
7.	Counseling/support for patient's family (22)	Health	65.22	25.36	23	85
8.	Eating disorder (12)	Health	64.05	28.34	22	81
9.	Biofeedback (9)	Health	62.40	23.37	25	93
10.	Sexual dysfunction/sexual concerns (15)	Health	62.29	19.22	24	89
11.	Prolonged grief reaction (10)	General	61.22	24.08	23	85
12.	Assist in adjustment to illness or injury (23)	Health	60.74	25.43	19	70
13.	Alcohol/drug abuse (4)	Health	59.50	28.96	22	82

Note. %=percentage of internist subsample n=27. Number in parentheses is item survey number.

Table 7 Continued

Rank	Item	Category	Rating M	SD	n	%
14.	Family counseling/marital or couples counseling (28)	General	59.24	28.01	25	93
15.	Personality assessment (5)	Assessment	58.19	28.89	21	78
16.	Intellectual evaluation (2)	Assessment	57.13	29.18	24	89
17.	Patient presents with somatic symptoms, all organic causes have been ruled out (20)	General	55.96	23.96	23	85
18.	Recent suicide attempt (8)	General	53.33	32.54	18	67
19.	Suspect patient is a victim of an abusive home situation (31)	General	53.30	33.43	20	74
20.	Smoking cessation (18)	Health	47.36	32.84	22	82
21.	Psychosis (25)	General	46.63	36.74	16	59
22.	Pain management (6)	Health	44.60	28.02	20	74
23.	Education on psychological/behavioral health issues (16)	Liaison	42.10	30.05	20	74
24.	Mild symptoms of anxiety & tension (24)	General	40.00	28.05	20	74
25.	Patient is terminally ill (29)	Health	39.59	25.32	17	62

Table 7 Continued

Rank	Item	Category	Rating M	SD	n	%
26.	Mild depressive symptoms (1)	General	34.71	29.94	21	78
27.	Patient refuses to comply to medical regimen (26)	Health	33.88	24.82	16	59
28.	Adjustment to hospitalization (7)	Health	31.94	34.15	17	62
29.	Assist in management of patient (13)	Liaison	31.56	25.79	18	67
30.	Management of hypertension (27)	Health	19.22	21.63	18	67
31a.	Assist in determining appropriateness for given treatment (30)	Assessment	14.75	15.11	16	59
31b.	Adjustment to general surgery (32)	Health	14.75	16.38	16	59

Table 8. Ratings of reasons for referral and consultation-surgeons

Rank	Item	Category	Rating M	SD	n	%
1.	Recent suicide attempt (8)	General	76.62	35.71	13	52
2.	Severe depression (19)	General	74.86	32.65	14	56
3.	Alcohol/drug abuse (4)	Health	71.60	28.20	15	60
4.	Suspect patient is a victim of an abusive home situation (31)	General	67.54	38.85	13	52
5.	Symptoms of severe anxiety & tension (14)	General	63.19	23.41	16	64
6.	Psychosis (25)	General	61.75	39.37	12	48
7.	Pain management (6)	Health	59.44	21.82	18	72
8.	Patient presents with somatic symptoms, all organic causes have been ruled out (20)	General	56.77	26.16	17	68
9.	Eating disorder (12)	Health	54.57	33.56	14	56
10a.	Sexual dysfunction/sexual concerns (15)	Health	53.23	31.38	13	52
10b.	Adjustment to major life event (21)	General	53.23	31.71	13	52

Note. %=percentage of surgeon subsample n=25. Number in parentheses is item survey number.

Table 8 Continued

Rank	Item	Category	Rating M	SD	n	%
11.	Prolonged grief reaction (10)	General	52.58	27.50	12	48
12.	Assist in adjustment to illness or injury (23)	Health	51.40	25.17	15	60
13.	Smoking cessation (18)	Health	50.77	38.62	13	52
14.	Biofeedback (9)	Health	49.07	24.22	15	60
15.	Counseling/support for patient's family (22)	Health	47.47	27.65	15	60
16.	Family counseling/marital or couples counseling (28)	General	47.36	31.87	14	56
17.	Stress management (3)	Health	44.50	30.35	16	64
18.	Patient is terminally ill (29)	Health	42.00	32.74	14	56
19.	Neuropsychological evaluation (11)	Assessment	41.07	34.05	15	60
20.	Personality assessment (5)	Assessment	38.86	34.71	14	56
21.	Psychodiagnostic testing & evaluation (17)	Assessment	33.77	33.67	13	52
22.	Intellectual evaluation (2)	Assessment	33.44	37.07	16	64
23.	Mild depressive symptoms (1)	General	32.53	24.70	15	60

Table 8 Continued

Rank	Item	Category	Rating M	SD	n	%
24.	Education on psychological/behavioral health issues (16)	Liaison	29.57	31.45	14	56
25.	Patient refuses to comply to medical regimen (26)	Health	25.33	32.34	12	48
26.	Assist in management of patient (13)	Liaison	25.17	21.75	12	48
27.	Adjustment to general surgery (32)	Health	21.27	21.74	11	44
28.	Mild symptoms of anxiety and tension (24)	General	19.64	20.20	14	56
29.	Adjustment to hospitalization (7)	Health	17.42	18.06	12	48
30.	Assist in determining appropriateness for given treatment (30)	Assessment	14.09	20.79	11	44
31.	Management of hypertension (27)	Health	6.82	6.27	11	44

problems were ranked highest while items representative of the health psychology/behavioral medicine area were lowest in ranking. Assessment and evaluation functions generally received ratings of average importance and fell in the middle of the ranking. Referral and consultation for liaison-teaching activities fell in the lower third for all three groups.

The major exception is the rankings for the internist group. Here, mean ratings of referral and consultation for psychodiagnostic testing and evaluation and neuropsychological evaluation received the highest rankings. In addition, rankings for referral and consultation for stress management, counseling and support of a patient's family, eating disorders, biofeedback, and sexual dysfunctions were also in the upper third of the rankings. In some ways this supports the given predictions, at least in terms of referral for assessment services. A comparison and contrast of the three specialties is made next.

Specialty differences were examined through the use of scatterplots of the mean item ratings for the 32 items. Three scatterplots were formed and are presented in Figures 1, 2, and 3. Figure 1 presents the mean item ratings for surgeons and family practitioners. Figure 2 presents the mean item ratings plotted for internists and family practitioners, and Figure 3 presents the mean item ratings plotted for surgeons and internists. For each, points around the 45^{o} line going through the original represent the items to which each specialty responds (rates) in a similar way. Points which are above or below this line represent items where the specialties differ in terms of item ratings. It is these latter points that are of specific interest. Again, in viewing this data it must be recalled that we are dealing with a small number of subjects in each specialty area and with

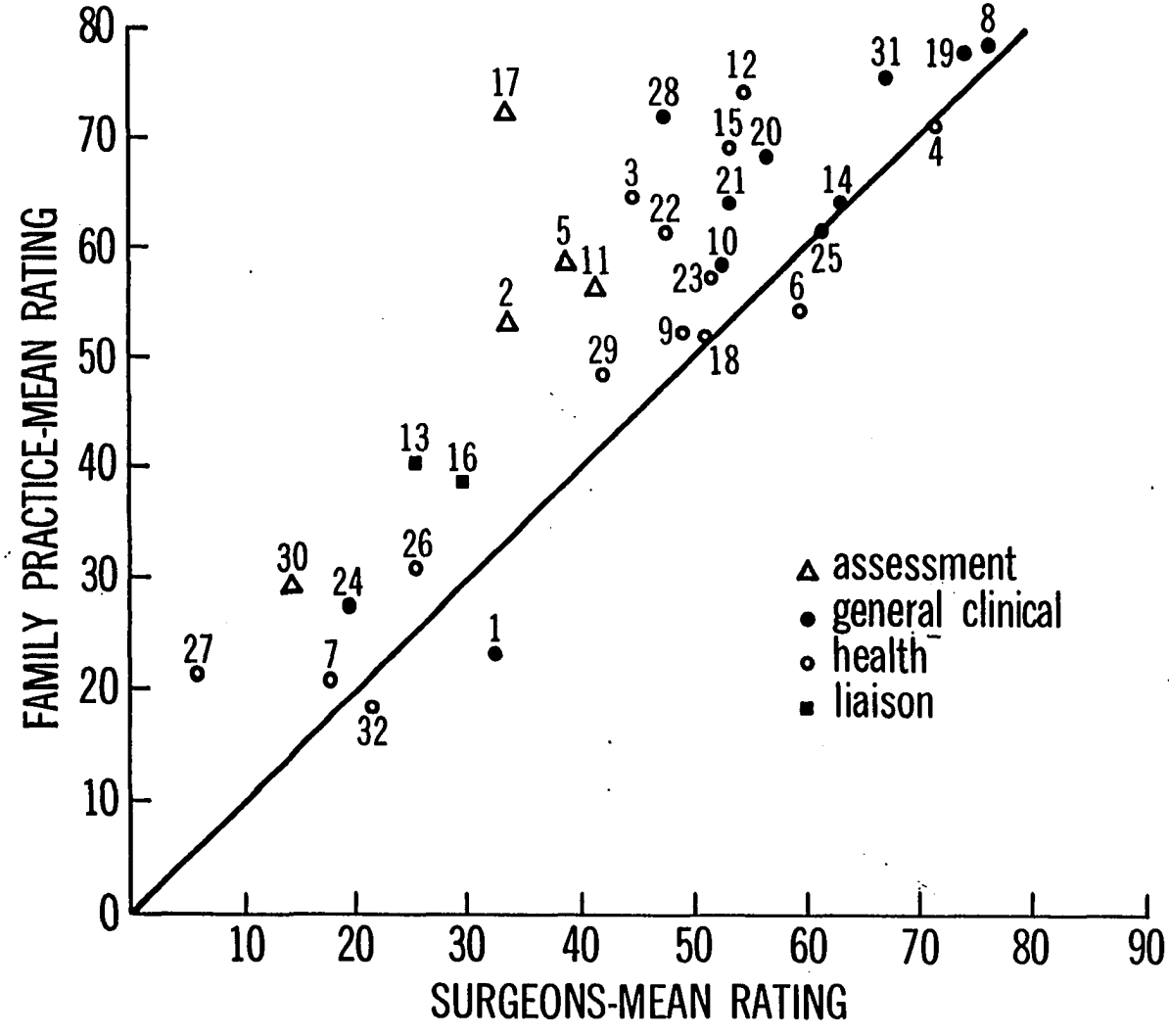

Figure 1. Mean referral and consultation item ratings for surgeons and family practitioners

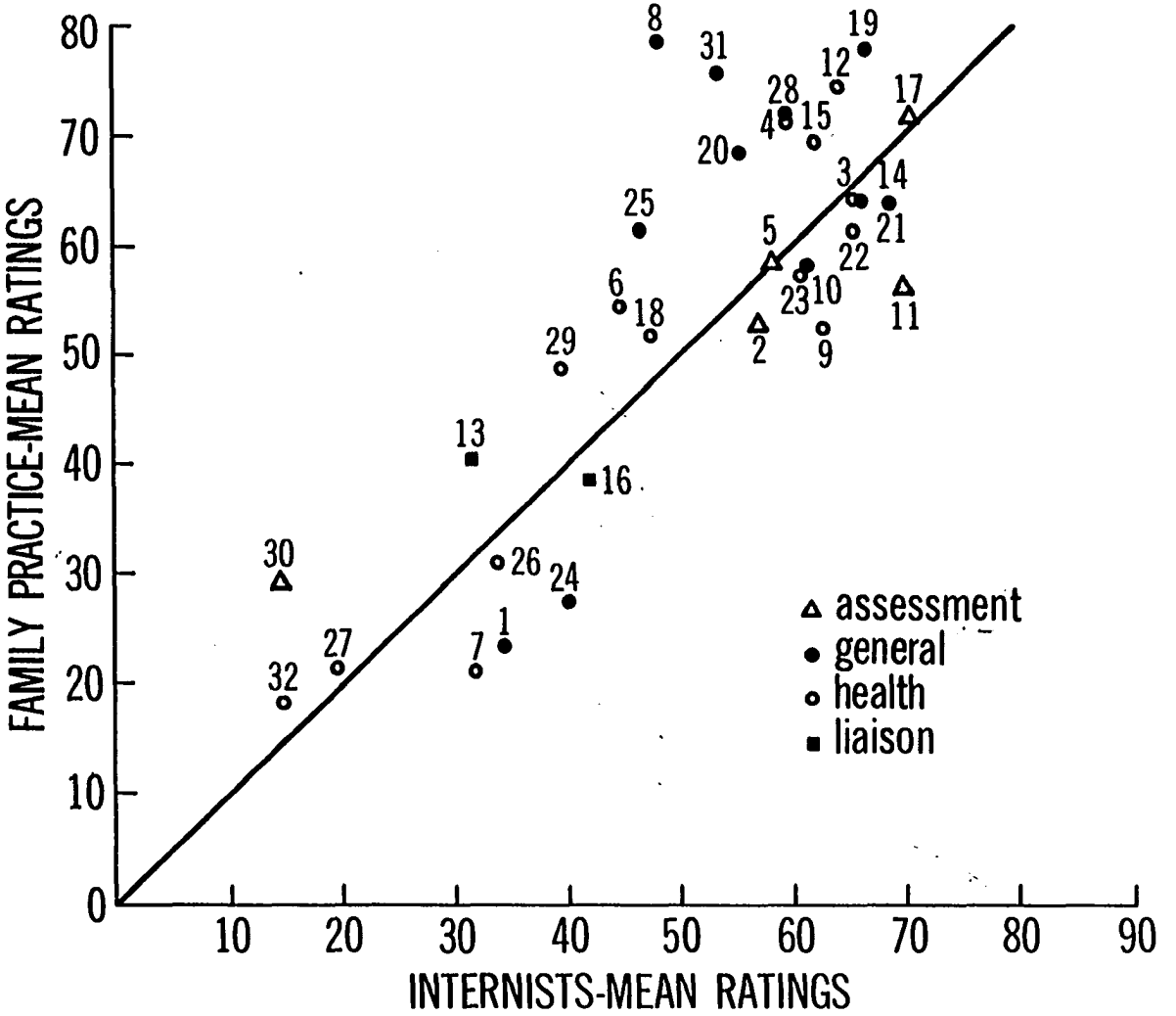

Figure 2. Mean referral and consultation item ratings for internists and family practitioners

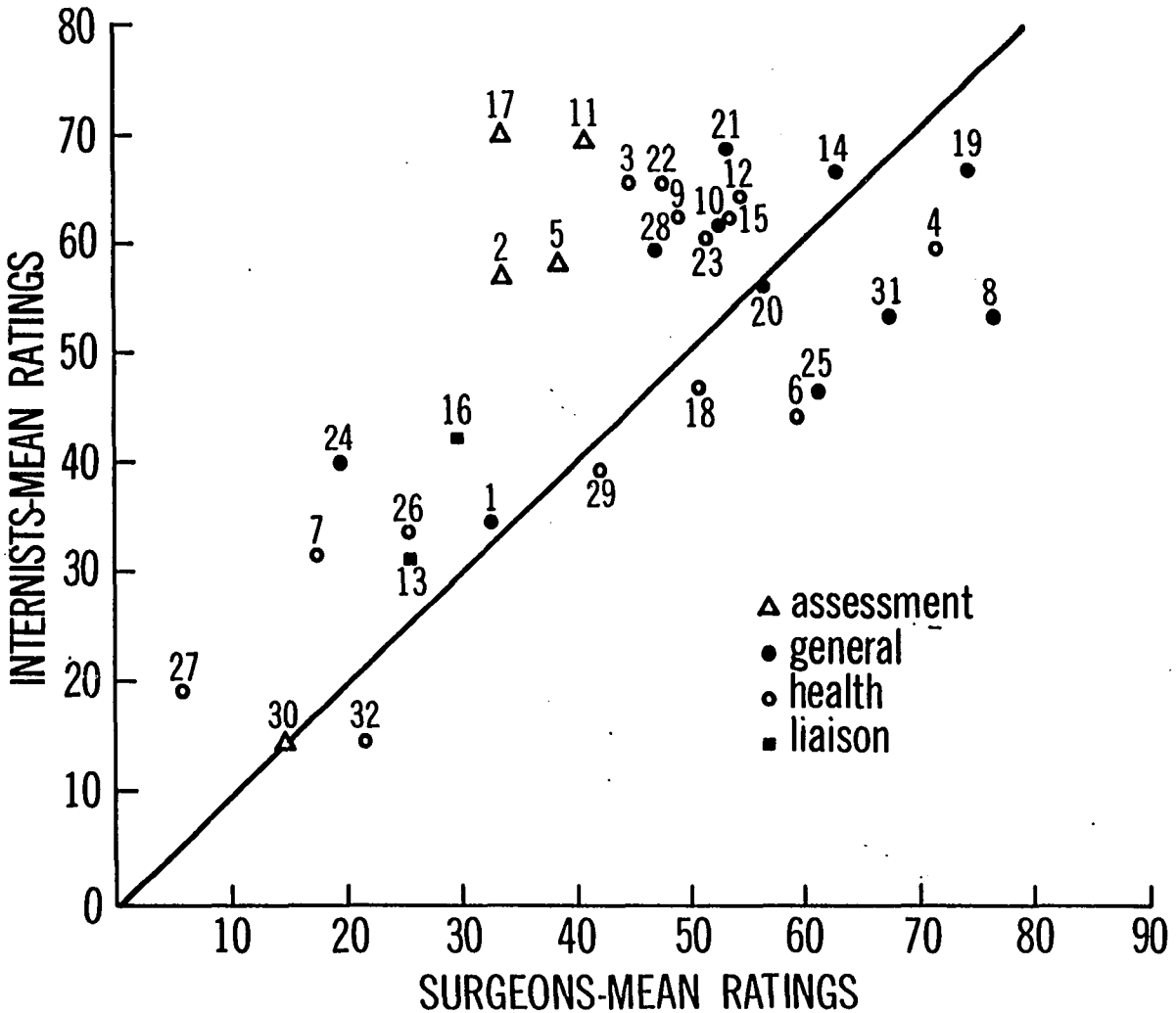

Figure 3. Mean referral and consultation item ratings for internists and surgeons

this, there are a varying number of responses for each item. Thus, all interpretations must be made with caution.

It was predicted that the three clinical specialties would show differences in ratings with family practitioners showing higher ratings for all items, this being interpreted as their giving greater importance to referral and consultation. In particular, it was expected family practitioners would give higher ratings for items representing the area of behavioral medicine and health psychology. These predictions received mixed support. Examination of Figure 1, the comparison of family practitioners and surgeons, indicates that family practitioners do show an overall tendency for higher ratings as the majority of points fall above the line of origin. Table 9 presents those items which show major deviation from the origin where Part I lists those in which ratings of family practitioners exceed those of surgeons. Examination of Figure 2, however, which plots mean item ratings for family practitioners and internists, indicates that both show a similarity in ratings. There are an approximately equal number of points above and below the origin and, in fact, the majority of them lie close to this line. Thus, this visual analysis indicates that family practitioners do show higher ratings than surgeons but do not differ from internists.

In contrast to the predictions, neither Figure 1 or Figure 2 indicates that family practitioners give higher ratings to health psychology and behavioral medicine items. Examination of the plots of these items, each represented by an open circle show they tend to lie near the line of origin for both of the group comparisons. This indicates a similarity in ratings.

Mean item ratings were plotted for surgeons and internists as well and

Table 9. Referral and consultation item ratings which deviate from the major constellation of item means for specialty groups

Part I. Items on Which Ratings of Family Practitioners Exceed that of Surgeons	
Item	Category
Intellectual Evaluation (2)	Assessment
Personality Assessment (5)	Assessment
Psychodiagnostic Testing (17)	Assessment
Family/marital Counseling (28)	General
Management of Hypertension (27)	Health
Stress Management (3)	Health
Part II. Items on Which Ratings of Internists Exceed that of Surgeons	
Item	Category
Intellectual Evaluation (2)	Assessment
Personality Assessment (5)	Assessment
Neuropsychological Evaluation (11)	Assessment
Psychodiagnostic Testing (17)	Assessment
Mild Symptoms of Anxiety & Tension (24)	General
Adjustment to Major Life Event (21)	General
Stress Management (3)	Health
Counseling/support for Patient's Family (22)	Health

Note. Number in parentheses is item survey number.

Table 9 Continued

Part III. Items on Which Ratings of Surgeons Exceed that of Internists

Item	Category
Abusive Home (31)	General
Recent Suicide Attempt (8)	General
Psychosis (25)	General
Pain Management (6)	Health

are presented in Figure 3. This is in accordance with the exploratory nature of this study. Here, however, no specific predictions were made regarding expected findings. Examination of this figure indicates that internists show an overall tendency to give higher ratings to the items. Part II of Table 9 lists the items which show major deviation from the line of origin where the ratings of internists exceed that of surgeons. An additional finding of interest is a small constellation of points in which surgeon's ratings exceed that of internists. These items are listed in Part III of Table 9.

In order to further examine potential differences in item ratings among the three clinical specialties one-way analyses of variance were performed on all the items. The results of these analyses are presented in Table 10. Simple examination would suggest that for eight of the 32 items there are significant ($p \leq .05$) differences among the groups and it is of interest to note that four of these eight items are from the assessment category (intellectual evaluation, psychodiagnostic testing and evaluation, personality assessment, and assist in determining appropriateness for treatment).

Given the large number of analyses, however, it is necessary to be conservative in interpreting the results and to adjust the significance level in order to avoid capitalizing on chance. With the standard .05 significance level there is an 80% probability that one or more of the given analyses is significant by chance alone. Thus, the significance level for each item was calculated by one of Bonferroni's inequalities (Cochran & Snedecor, 1980) of p/n where p equals a given probability level and n equals the number of analyses performed. This procedure holds the

Table 10. One-way analyses of variance of referral and consultation item ratings for physician specialties

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Assessment					
Intellectual evaluation (2)	53.00 (25.04)	57.13 (29.18)	33.44 (37.07)	3.917(2,60)	.025
Personality assessment (5)	58.48 (24.28)	58.19 (28.89)	38.86 (34.71)	3.333(2,55)	.043
Neuropsychological Eval. (11)	56.43 (27.80)	69.95 (31.74)	41.07 (34.05)	2.945(2,53)	.061
Psychodiagnostic testing (17)	72.00 (26.61)	70.39 (26.15)	33.77 (33.67)	9.731(2,56)	.001
Assist in determining appropriateness (30)	29.47 (21.27)	14.75 (15.11)	14.09 (20.79)	4.258(2,41)	.021
General Clinical					
Mild depressive symptoms (1)	23.70 (21.11)	34.71 (29.94)	32.53 (24.70)	.567(2,53)	.571

[a]Nontransformed data.

[b]Transformed data.

Table 10 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Recent suicide attempt (8)	78.60 (29.00)	53.33 (32.54)	76.62 (35.71)	3.993(2,53)	.024
Prolonged grief reaction (10)	58.48 (26.39)	61.22 (24.08)	52.58 (27.50)	.762(2,55)	.472
Severe anxiety & tension (14)	64.33 (27.54)	66.30 (26.73)	63.19 (23.41)	.128(2,60)	.881
Severe depression (19)	78.00 (27.86)	66.95 (31.51)	74.86 (32.65)	.593(2,53)	.556
Somatization (20)	68.95 (20.01)	55.96 (23.96)	56.77 (26.16)	2.148(2,58)	.126
Adjustment to major life event (21)	64.29 (17.98)	68.88 (25.98)	53.23 (31.71)	2.277(2,56)	.112
Mild anxiety & tension (24)	27.50 (18.65)	40.00 (28.05)	19.64 (20.20)	3.201(2,49)	.049
Psychosis (25)	61.50 (35.59)	46.63 (36.74)	61.75 (39.37)	.566(2,45)	.572
Family/marital counseling (28)	72.00 (22.13)	59.24 (28.01)	47.36 (31.87)	5.319(2,62)	.007

Table 10 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Abusive home (31)	75.73 (25.39)	53.30 (33.43)	67.54 (38.85)	2.085(2,52)	.135
Health					
Stress management (3)	64.46 (25.87)	65.35 (27.55)	44.50 (30.35)	3.328(2,61)	.043
Alcohol/drug abuse (4)	71.96 (25.56)	59.50 (28.96)	71.60 (28.20)	1.428(2,60)	.248
Pain management (6)	54.64 (25.24)	44.60 (28.02)	59.44 (21.82)	1.803(2,60)	.174
Adjustment to hosp. (7)	21.22 (16.88)	31.94 (34.15)	17.42 (18.06)	1.004(2,44)	.375
Biofeedback (9)	52.88 (25.67)	62.40 (23.37)	49.07 (24.22)	1.500(2,61)	.231
Eating disorder (12)	74.40 (28.61)	64.05 (28.34)	54.57 (33.56)	1.847(2,58)	.167
Sexual dysfunction/concerns (15)	69.92 (25.36)	62.29 (19.22)	53.23 (31.38)	2.918(2,59)	.062

Table 10 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Smoking cessation (18)	52.26 (29.55)	47.36 (32.84)	50.77 (38.62)	.420(2,55)	.659
Counseling/support for pt.s family (22)	61.70 (18.16)	65.22 (25.36)	47.47 (27.65)	3.333(2,58)	.043
Adjustment to illness/ injury (23)	57.50 (21.44)	60.74 (25.43)	51.40 (25.17)	.968(2,49)	.387
Refuses to comply to medical regimen (26)	31.06 (28.86)	33.88 (24.82)	25.33 (32.34)	.476(2,42)	.625
Management of hypertension (27)	21.88 (21.16)	19.22 (21.63)	6.82 (6.27)	2.722(2,43)	.077
Pt. is terminally ill (29)	48.72 (31.15)	39.59 (25.32)	42.00 (32.74)	.292(2,46)	.748
Adjustment to general surg. (32)	18.35 (16.54)	14.75 (16.38)	21.27 (21.74)	.550(2,41)	.581

Table 10 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Liaison					
Assist in management of pt. (13)	40.76 (23.49)	31.56 (25.79)	25.17 (21.75)	2.011(2,48)	.145
Education on issues (16)	38.89 (26.77)	42.10 (30.05)	29.57 (31.45)	1.396(2,49)	.257

overall probability that one or more analysis is significant by chance alone to the given p value (Hays, 1973). With a p of .05 and n=32, the level of significance for each item is set at .002. When the data are reviewed with this criterion only two items (psychodiagnostic testing and evaluation and family/marital counseling) show significant differences among groups. Thus, from a conservative viewpoint there do not appear to be significant differences among groups. This is somewhat contrary to what is suggested by the visual analyses (scatterplots).

As an added component of analysis, subjects were asked to indicate, by checking, if they had or would request referral or consultation for a given item. Unfortunately, subjects were inconsistent in responding with some electing to only rate the items, others rating only items they checked, and various other approaches. This makes accurate analysis and interpretation nearly impossible. The standard caveat applies, one must consider these data with caution.

Overall, it appears that most subjects had or would request referral for most of the items. As may be seen in Table 11 a majority of subjects responded affirmatively for 21 to 32 of the items, the majority indicating they had or would refer for four of the five assessment items, eight of the 11 general items, and nine of the 14 health items. Of interest, the majority reported no referral for the two liaison items. Correlation analyses between the responses and item ratings suggest a positive association between the two, affirmative responses (yes, has or would refer) earning higher ratings. The correlation coefficients are presented in Table 11 and, as can be seen, most are significant at the .05 level and most remain significant even with the more conservative p of

Table 11. Reported referral and consultation practices and relationship to item ratings

Category/Item	Yes	No	No response/Missing/Other	r [a]	p
Assessment					
Intellectual evaluation (2)	33	16*	33	.454 (49)	.001
Personality assessment (5)	26	20	36	.638 (46)	.001
Neuropsychological eval. (11)	30	14	38	.558 (44)	.001
Psychodiagnostic testing (17)	34	13*	35	.672 (47)	.001
Assist in determining appropriateness (30)	3	29	50	.197 (32)	.140
General Clinical					
Mild depressive symptoms (1)	18	26	38	.588 (44)	.001
Recent suicide attempt (8)	27	17	38	.553 (44)	.001
Prolonged grief reaction (10)	33	13	36	.486 (46)	.001
Severe anxiety & tension (14)	40	10	32	.472 (50)	.001

[a]Number in parentheses is number used to compute correlation coefficient.

*Chi=square analyses significant at .05 level.

Table 11 Continued

Category/Item	Yes	No	No response/Missing/Other	r[a]	p
Severe depression (19)	33	11	38	.629 (44)	.001
Somatization (20)	38	9	35	.238 (47)	.054
Adjustment to life event (21)	35	11	36	.268 (46)	.036
Mild anxiety & tension (24)	13	26*	43	.426 (39)	.003
Psychosis (25)	17	19*	46	.393 (36)	.009
Family/marital counseling (28)	44	8	30	.470 (52)	.001
Abusive home (31)	24	19	39	.528 (43)	.001
Health					
Stress management (3)	42	10*	30	.530 (51)	.001
Alcohol/drug abuse (4)	44	8	30	.504 (51)	.001
Pain management (6)	35	15	32	.438 (50)	.001
Adjustment to hosp. (7)	6	29	47	.405 (35)	.008
Biofeedback (9)	41	11	30	.554 (52)	.001
Eating disorder (12)	37	12	33	.365 (49)	.005
Sexual dysfunction/concerns (15)	38	13	31	.427 (50)	.001

Table 11 Continued

Category/Item	Yes	No	No response/Missing/Other	r[a]	p
Smoking cessation (18)	26	20	36	.426 (46)	.002
Support for pt.s family (22)	34	14	34	.321 (48)	.013
Adjustment to illness/injury (23)	19	20	43	.349 (39)	.015
Refuses to comply to regimen (26)	5	28	49	.317 (33)	.036
Management of hypertension (27)	4	30	48	.114 (34)	.261
Pt. is terminally ill (29)	12	25	45	.467 (37)	.002
Adjustment to general surgery (32)	1	32	49	.201 (33)	.131
Liaison					
Assist in management of pt. (13)	17	22*	43	.586 (39)	.001
Education on issues (16)	12	28	42	.500 (40)	.001

.002 set by the Bonferroni procedure. This relationship is further examined in Table 12 where item ratings are broken down by the yes or no (check or no check) response. Here, the association between reported practice and rating of value, is apparent with the item ratings with a yes response consistently being higher than those with a no response. Of interest, rankings of mean item ratings for "yes" responses echo that of the general group; however, rankings for the "no" group do not and do not form a readily interpretable pattern. Overall, the noted association is simply logical.

There were very few differences among specialties in their referral practices. Chi-square analyses indicated only six of the 32 items showed significant ($p \leq .05$) differences. However, again, due to the large number of analyses, one must allow for chance effects. When the Bonferroni procedure is applied, only Item 28 (marital or family counseling) emerges as significantly different. Thus, specialties seem similar in their reported present or future referral practices. It is of interest that the majority of correlation analyses for each specialty were not significant.

Analysis II: Deterrents to Referral and Consultation

For this section, physicians were asked to rate various statements, on a 1 to 99 scale, in terms of their degree of impact as a factor against referral or consultation. All interpretation of the findings must again be made with caution given the small and varying number of subjects responding to each of the items. In addition, examination of the actual ratings for this section shows that most fell in the average or below average range suggesting a possible "under-rating" by all subjects. This, too, merits caution in interpretation.

Table 12. Physicians' mean item ratings according to reported referral and consultation practices

Category/Item[a]	Yes M	(Rank)	SD	n	No M	(Rank)	SD	n
Assessment								
Intellectual evaluation (2)	60.85	(23)	23.40	33	32.75	(21)	31.88	16
Personality assessment (5)	70.00	(15)	18.76	26	33.45	(20)	26.41	20
Neuropsychological evaluation (11)	73.20	(10)	24.43	30	35.86	(17)	30.64	14
Psychodiagnostic testing (17)	76.77	(5)	19.90	34	29.54	(23)	32.23	13
Assist in determining appropriateness (30)	30.00	(31)	20.00	3	18.24	(31)	17.48	29
General Clinical								
Mild depressive symptoms (1)	51.11	(27)	20.83	18	20.35	(28)	21.58	26
Recent suicide attempt (8)	88.22	(2)	15.56	27	51.06	(7)	40.61	17
Prolonged grief reaction (10)	70.27	(14)	17.45	33	44.54	(12)	29.17	13
Severe anxiety & tension (14)	73.70	(9)	19.57	40	45.10	(11)	29.74	10
Severe depression (19)	88.91	(1)	12.35	33	50.82	(8)	36.60	11

[a]Number in parentheses is item survey number.

Table 12 Continued

Category/Item[a]	Yes M	(Rank)	SD	n	No M	(Rank)	SD	n
Somatization (20)	65.80	(18)	20.93	38	52.78	(4)	23.33	9
Adjustment to life event (21)	71.77	(12)	20.41	35	57.36	(1)	28.82	11
Mild anxiety & tension (24)	45.92	(28)	21.47	13	25.00	(26)	21.52	26
Psychosis (25)	75.53	(7)	26.28	17	46.90	(10)	40.22	19
Family/marital counseling (28)	71.86	(11)	19.92	44	37.88	(15)	38.78	8
Abusive home (31)	83.67	(3)	21.22	24	49.47	(9)	34.72	19
Health								
Stress management (3)	71.15	(13)	21.63	41	35.20	(18)	29.65	10
Alcohol/drug abuse (4)	76.56	(6)	21.48	43	38.88	(13)	35.48	8
Pain management (6)	61.57	(22)	19.05	35	38.20	(14)	29.05	15
Adjustment to hospitalization (7)	44.83	(29)	35.19	6	19.04	(29)	19.57	29
Biofeedback (9)	63.76	(19)	22.17	41	30.00	(22)	16.13	11
Eating disorder (12)	77.92	(4)	21.03	37	55.75	(2)	34.39	12

Table 12 Continued

Category/Item[a]	Yes M	(Rank)	SD	n	No M	(Rank)	SD	n
Sexual dysfunction/concerns (15)	74.41	(8)	18.17	37	53.85	(3)	22.93	13
Smoking cessation (18)	63.50	(20)	25.21	26	37.60	(16)	30.97	20
Support for patient's family (22)	67.32	(17)	22.14	34	51.50	(6)	20.51	14
Adjustment to illness/injury (23)	67.84	(16)	18.56	19	52.50	(5)	23.37	20
Refuses to comply to regimen (26)	52.00	(26)	16.43	5	27.39	(24)	28.54	28
Management of hypertension (27)	25.00	(32)	17.32	4	17.67	(32)	21.69	30
Patient is terminally ill (29)	62.50	(21)	19.71	12	33.88	(19)	28.51	25
Adjustment to general surgery (32)	40.00	(30)	-	1	18.41	(30)	18.64	32
Liaison								
Assist in management of pt. (13)	52.71	(25)	24.88	17	22.68	(27)	17.74	22

Table 12 Continued

Category/Item [a]	Yes				No			
	M	(Rank)	SD	n	M	(Rank)	SD	n
Education on issues (16)	57.50	(24)	25.63	12	27.32	(25)	24.12	28

Overall, it was predicted that physicians as a group would rate three factors as having highest impact on their decision to NOT refer: 1) the patient would become upset by referral and consultation; 2) the physician-patient relationship would be negatively affected; and 3) psychologists do not provide adequate communication or follow-up after referral. The next highest ratings would be given to "philosophical" factors specifically the belief that medical problems should take precedence, the belief one person should maintain sole charge in treatment, the contention patients will not follow through on referral, and an indication of lack of time to evaluate psychosocial issues and consider referral. With this, physicians would also place high impact on two "political" items indicating both they and the patient prefer psychiatric referral and consultation. Conversely, it was predicted physicians would show least concern for economic factors giving low rating to lack of insurance reimbursement for psychological services as a factor.

In general, examination of the rankings of the mean ratings of the items for the entire sample shows little support of the hypotheses. These items, their given category of classification, and mean and standard deviations of their ratings are ranked according to mean rating and presented in Table 13. The number and percentage of subjects responding to each item is also listed. Of the three items predicted to have greatest impact only that of patient upset received a high ranking (ranked 2nd). In fact, contrary to expectations, referral and consultation having a negative effect on the physician-patient relationship received one of the lowest rankings (ranked 15th). The philosophical factors did not emerge as having any major impact, ratings for all falling in the middle to lower third of

Table 13. Ratings of factors which may deter referral and consultation-entire group

Rank	Item	Category	Rating M	SD	n	%
1.	The patient prefers psychiatric referral (15)	Political	51.31	36.76	62	76
2.	The patient will become upset by psychological referral (1)	General	50.46	30.13	66	81
3.	The given disturbance is not serious enough for referral (14)	General	46.37	37.35	63	77
4.	The patient's insurance will not reimburse for psychological services (7)	Economic	45.16	30.71	63	77
5.	I prefer to refer to psychiatrists (11)	Political	42.15	33.66	62	76
6.	Patients will not follow through on psychological referral (6)	Philosophical	41.02	30.94	64	78
7.	Psychologists do not provide adequate communication or follow-up (5)	General	31.05	32.12	62	76
8.	I prefer to treat the problems myself (13)	General	28.39	28.62	61	74
9.	Medical problems must take precedence in treatment (9)	Philosophical	28.34	30.28	61	74

Note. %=percentage of total sample N=82. Number in parentheses is item survey number.

Table 13 Continued

Rank	Item	Category	Rating M	SD	n	%
10.	Medication is more cost effective (4)	Political	26.79	28.07	63	77
11.	Response to my request is too slow (16)	General	26.22	28.63	60	73
12.	There is a shortage of available services (2)	General	25.66	27.79	62	76
13.	The interventions are of little benefit (8)	General	20.83	24.36	61	74
14.	One individual should maintain sole charge (3)	Philosophical	20.22	24.22	62	76
15.	Referral will negatively affect my relationship with the patient (12)	General	15.61	20.47	62	76
16.	I don't have the time to consider issues and need for referral (10)	Philosophical	11.98	17.87	62	76

the ranking. The only exception is that of the patient's failure to follow through on referral, this fell in the upper third of the ranking (ranked 6th). Political factors, specifically both the patient's and the physician's preference for psychiatric referral did emerge as important with the ratings for both items receiving high rankings (1 and 5 respectively). The ratings of both, however, were higher than expected. Economic concerns, lack of insurance reimbursement, was initially ranked highly (ranked 4th) indicating significant impact. This was contrary to expectations.

Overall, items with highest ratings were a mixture of political, general, and economic factors. The patient's upset at referral or consultation, his or her preference for psychiatric referral or consultation, and a belief that a given disturbance is not serious enough to warrant referral and consultation were ranked highest. Low ratings were given to general and philosophical concerns with referral and consultation negatively affecting the physician-patient relationship and an indication of lack of time to consider psychosocial issues and need for referral being lowest in ranking.

Rankings of mean ratings for the three clinical specialties generally echo the rankings for the entire sample. For each group these items, along with their classification categories and mean and standard deviation of their ratings, are listed in order of rating and presented in Tables 14, 15 and 16. As with the entire group, only the factor of patient upset showed one of the highest rankings suggesting it did have impact. The other two items, concern over effect on the physician-patient relationship and lack of adequate follow-up, fell in the middle to lower third of the ranking

Table 14. Ratings of factors which may deter referral and consultation-family practice physicians

Rank	Item	Category	Rating M	SD	n	%
1.	The patient's insurance will not reimburse for psychological services (7)	Economic	51.67	26.10	21	70
2.	The given disturbance is not serious enough for referral (14)	General	49.18	32.20	22	73
3.	Patients will not follow through on psychological referral (6)	Philosophical	47.52	28.18	21	70
4.	The patient will become upset by psychological referral (1)	General	46.56	26.56	22	73
5.	The patient prefers psychiatric referral (15)	Political	43.71	37.55	21	70
6.	I prefer to treat the problems myself (13)	General	40.91	33.73	21	70
7.	I prefer to refer to psychiatrists (11)	Political	35.35	32.99	20	67
8.	Psychologists do not provide adequate communication or follow-up (5)	General	31.14	32.19	21	70
9.	There is a shortage of available services (2)	General	28.57	32.69	21	70

Note. %=percentage of family practice sample n=30. Number in parentheses is item survey number.

Table 14 Continued

Rank	Item	Category	Rating M	SD	n	%
10.	Medication is more cost-effective (4)	Political	23.19	27.28	21	70
11.	Response to my request is too slow (16)	General	22.65	29.24	20	67
12.	One individual should maintain sole charge (3)	Philosophical	18.10	23.50	21	70
13.	Referral will negatively affect my relationship with the patient (12)	General	17.00	26.52	21	70
14.	Medical problems must take precedence in treatment (9)	General	16.67	18.36	21	70
15.	The interventions are of little benefit (8)	General	16.05	20.22	20	67
16.	I don't have the time to consider issues and need for referral (10)	Philosophical	6.91	16.67	21	70

Table 15. Ratings of factors which may deter referral and consultation-internists

Rank	Item	Category	Rating M	SD	n	%
1.	The patient will become upset by psychological referral (1)	General	57.16	31.60	25	93
2.	The patient prefers psychiatric referral (15)	Political	54.48	35.30	25	93
3.	The patient's insurance will not reimburse for psychological services (7)	Economic	48.04	29.20	25	93
4.	I prefer to refer to psychiatrists (11)	Political	44.40	30.31	25	93
5.	The given disturbance is not serious enough for referral (14)	General	43.72	30.49	25	93
6.	Patients will not follow through on psychological referral (6)	Philosophical	39.12	32.90	25	93
7.	Response to my request is too slow (16)	General	37.72	30.44	25	93
8.	Psychologists do not provide adequate communication or follow-up (5)	General	36.20	31.52	25	93
9.	Medication is more cost-effective (4)	Philosophical	34.52	30.01	25	93
10.	I prefer to treat the problems myself (13)	General	29.80	24.84	25	93

Note. %=percentage of internist subsample n=27. Number in parentheses is item survey number.

Table 15 Continued

Rank	Item	Category	Rating M	SD	n	%
11.	There is a shortage of available services (2)	General	28.92	25.57	24	88
12.	Medical problems must take precedence in treatment (9)	Philosophical	28.33	31.18	24	88
13.	One individual should maintain sole charge (3)	Philosophical	24.60	25.15	25	93
14.	The interventions are of little benefit (8)	General	20.64	23.28	25	93
15.	Referral will negatively affect my relationship with the patient (12)	General	12.46	13.16	24	88
16.	I don't have the time to consider issues and need for referral (10)	Philosophical	12.04	14.27	25	93

Table 16. Ratings of factors which may deter referral and consultation-surgeons

Rank	Item	Category	Rating M	SD	n	%
1.	The patient prefers psychiatric referral (15)	Political	56.31	38.70	16	64
2.	I prefer to refer to psychiatrists (11)	Political	46.82	39.50	17	68
3.	The given disturbance is not serious enough for referral (14)	General	46.63	36.92	16	64
4.	The patient will become upset by psychological referral (1)	General	46.16	31.97	19	76
5.	Medical problems must take precedence (9)	Philosophical	43.69	35.86	16	64
6.	Patients will not follow thorugh on psychological referral (6)	Philosophical	36.10	31.65	18	72
7.	The patient's insurance will not reimburse for psychologic services (7)	Economic	32.88	36.01	17	68
8.	The interventions are of little benefit (8)	General	27.13	30.26	16	64
9.	Psychologists do not provide adequate communication or follow-up (5)	General	22.88	33.30	16	64
10.	Medication is more cost-effective (4)	Political	19.88	24.73	17	68

Note. %=percentage of surgeons subsample n=25. Number in parentheses is item survey number.

Table 16 Continued

Rank	Item	Category	Rating M	Rating SD	n	%
11.	I don't have the time to consider issues and need for referral (10)	Philosophical	18.56	23.37	16	64
12.	Referral will negatively affect my relationship with the patient (12)	General	18.35	21.07	17	68
13.	There is a shortage of available services (2)	General	17.47	23.87	17	68
14.	One individual should maintain sole charge (3)	Philosophical	16.19	24.11	16	64
15.	Response to my request is too slow (16)	General	11.80	15.16	15	60
16.	I prefer to treat the problems myself (13)	General	8.53	12.86	15	60

suggesting little impact. Similarly, ratings of the "philosophical" items which were also predicted to have high impact fell in the middle to lower third of the rankings. The only exception was the item regarding the patient's failure to follow through on referral. As with the entire sample, its rating fell in the upper third of the rankings for all three specialties. The ratings of "political" factors, the physician's and the patient's preference for psychiatric referral, showed high rankings. In fact, these two items were of the highest rank. The ratings for the economic concerns which was predicted to have little impact emerged in the upper third of the ranking.

Differences between the three clinical specialties were examined through the use of scatterplots, one plotted for each group comparison. Figure 4 presents the mean item ratings for family practitioners and surgeons, Figure 5 presents the plotting for family practitioners and internists, and Figure 6 for internists and surgeons. The same cautions in interpretation apply as noted earlier in this section.

It was expected that family practitioners, as compared to the other two specialties, would show lowest ratings for the three "general" factors of referral causing patient upset, negative effect on the physician-patient relationship, and lack of adequate follow-up by psychologists and for all items classified as "philosophical." Conversely, it was expected that family practitioners, as compared to the other two groups would give higher rating to the item indicating preference to treat a given disorder themselves. Examination of Figures 4 and 5 indicate that the results do not follow these expectations. Plottings for all of the above "general" factors (items 1, 12, and 5) lie on or near the line of origin for both

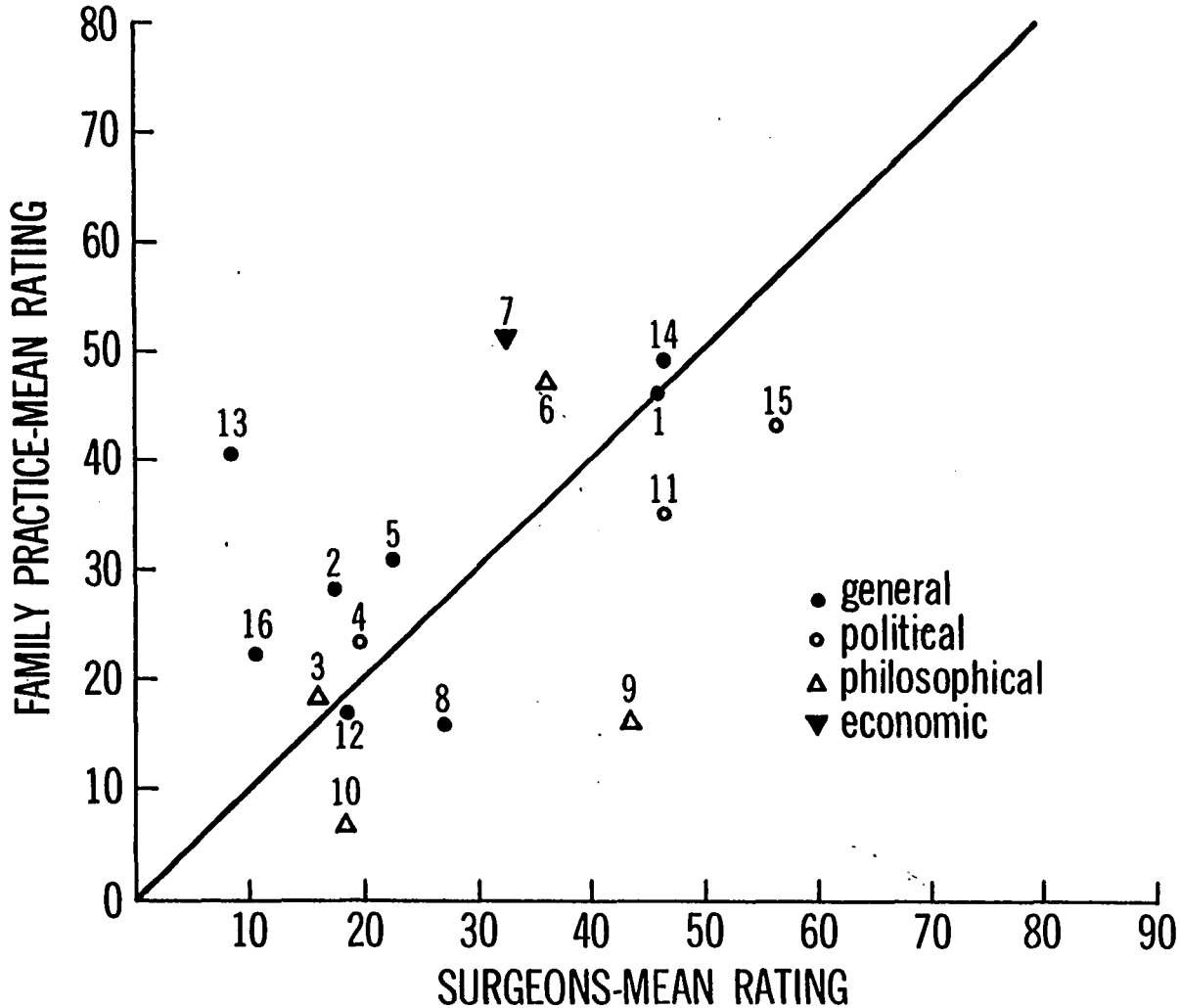

Figure 4. Mean deterrent item ratings for surgeons and family practitioners

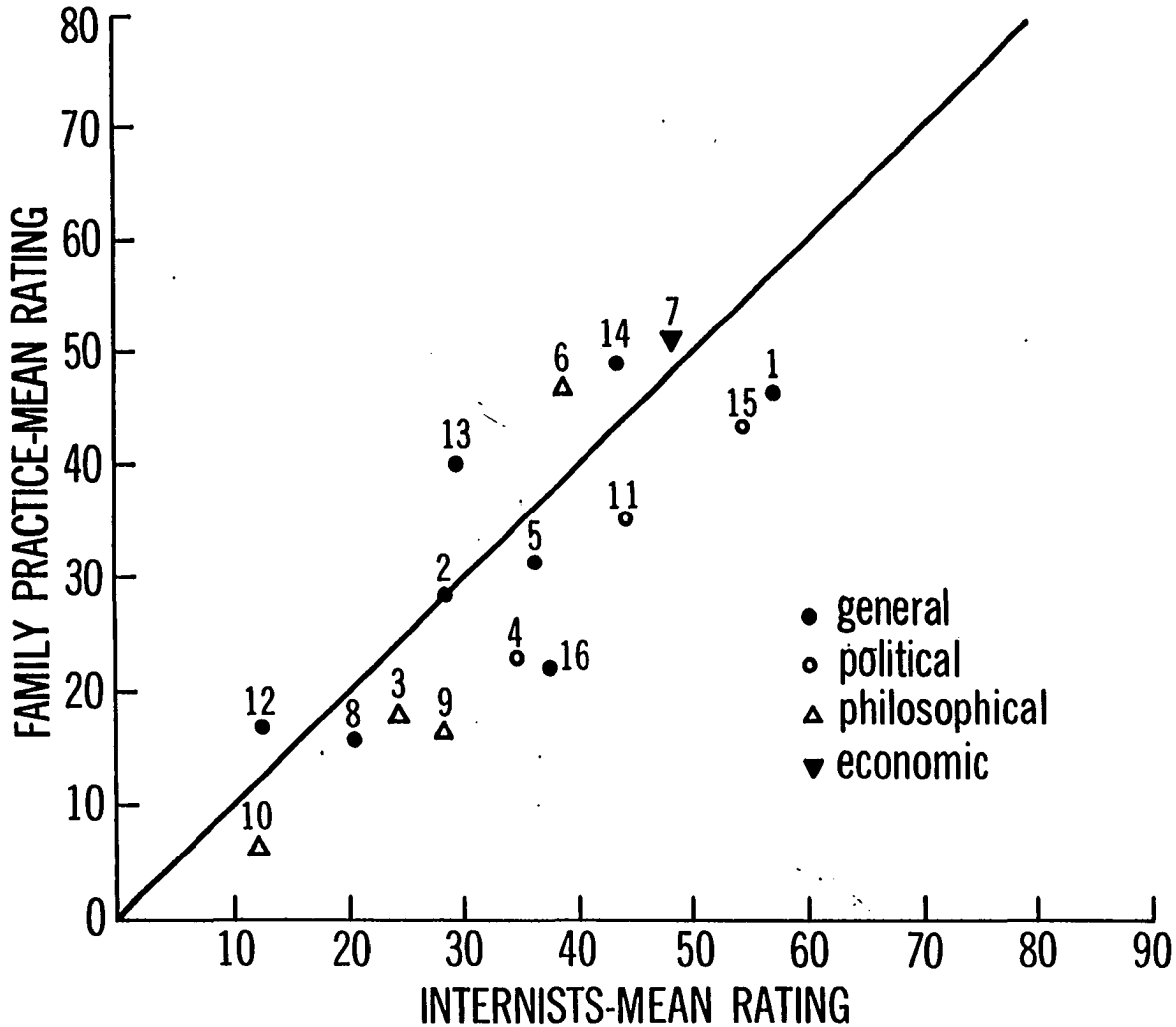

Figure 5. Mean deterrent item ratings for internists and family practitioners

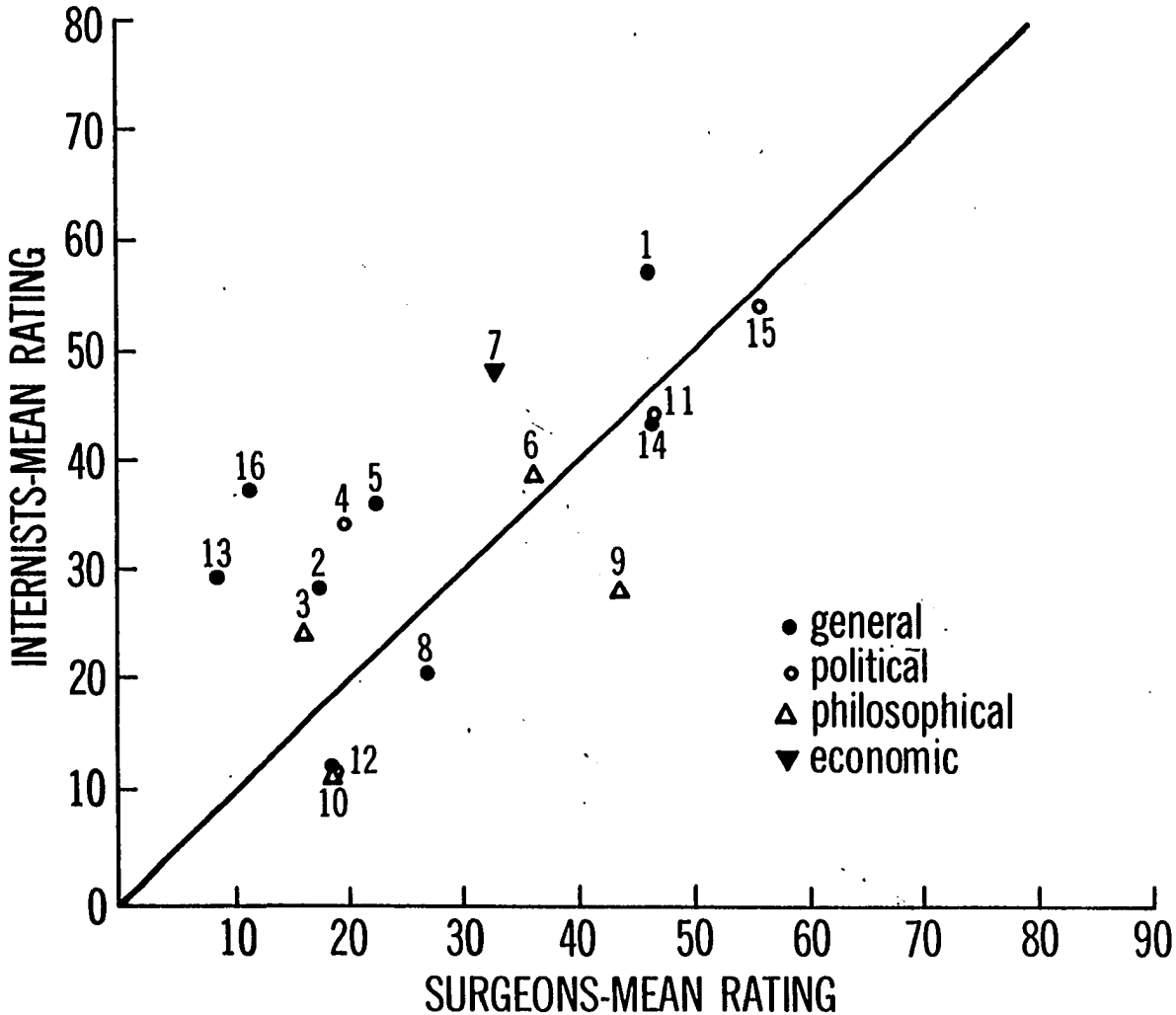

Figure 6. Mean deterrent item ratings for internists and surgeons

group comparisons indicating a similarity in ratings. Similarly, the majority of points representing philosophical factors, represented by open triangles, also fall near the line of origin and thus show no apparent difference among groups. The one exception, where results did follow expectations, is the rating for Item 13, the indication of preference to treat a disorder themselves. Family practitioners did show higher ratings in both group configurations.

Mean item ratings for internists and surgeons were plotted and presented in Figure 6. As in the former analysis, no specific predictions were made. Overall, visual examination indicates internists tended to give higher ratings to the items suggesting the factors had greater effect.

As in the prior section, potential differences in ratings among the three groups were further examined by one-way analyses for each item. These analyses are presented in Table 17. Here, simple examination indicates only two (preference to treat by him or herself and response being too slow) of the 16 items show significant ($p \leq .05$) differences among groups, both are from the general category. Again, using the Bonferroni procedure, the given significance level is recalculated to $p \leq .003$. With this level as a criterion, only one item (preference to treat him or herself) shows a significant difference in ratings among the groups. While this is a finding that could be expected on the basis of chance it is of interest to note that it does seem to confirm the visual analyses.

Table 17. One-way analyses of variance of item ratings of referral and consultation deterrents for physician specialties

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
General					
Patient will become upset (1)	46.55 (26.56)	57.16 (31.60)	46.16 (31.97)	1.241(2,63)	.296
Shortage of services (2)	28.57 (32.69)	28.92 (25.57)	17.47 (23.87)	1.239(2,59)	.297
No adequate communication or follow-up (5)	31.14 (32.19)	36.20 (31.52)	22.88 (33.30)	.896(2,59)	.414
Interventions of little benefit (8)	16.05 (20.22)	20.64 (23.28)	27.12 (30.26)	.927(2,58)	.401
Negatively affect my relationship (12)	17.00 (26.52)	12.46 (13.16)	18.35 (21.07)	.161(2,59)	.852
Prefer to treat myself (13)	40.91 (33.73)	29.80 (24.84)	8.53 (12.86)	6.771(2,58)	.002

[a]Nontransformed ratings.

[b]Transformed ratings.

Table 17 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Disturbance not serious enough (14)	49.18 (32.20)	43.72 (30.49)	46.63 (36.92)	.323(2,60)	.725
Response is too slow (16)	22.65 (29.24)	37.72 (37.72)	11.80 (15.16)	4.830(2,57)	.011
Political					
Medication more cost-effective (4)	23.19 (27.28)	34.52 (30.01)	19.88 (24.73)	2.007(2,60)	.143
Prefer to refer to psychiatrists (11)	35.35 (32.99)	44.40 (30.31)	46.82 (39.50)	.498(2,59)	.610
Patient prefers psychiatrists (15)	43.71 (37.55)	54.48 (35.30)	56.31 (38.70)	.445(2,59)	.643
Philosophical					
One individual should maintain sole charge (3)	18.10 (23.50)	24.60 (25.15)	16.19 (24.11)	1.559(2,59)	.219

Table 17 Continued

Category/Item	Means (Standard Deviations)[a] FP	IM	S	F(d.f.)[b]	p
Patients won't follow through (6)	47.52 (28.18)	39.12 (32.90)	36.10 (31.65)	1.025(2,61)	.365
Medical problems take precedence (9)	16.67 (18.36)	28.33 (31.18)	43.69 (35.86)	2.839(2,58)	.067
Don't have time to consider need for referral (10)	6.91 (16.07)	12.04 (14.27	18.56 (23.37)	2.113(2,59)	.130
Economic					
Insurance won't reimburse (7)	51.67 (26.10)	48.04 (29.20)	32.88 (36.01)	1.950(2,60)	.151

DISCUSSION AND CONCLUSIONS

This research was undertaken to assess reasons why physicians utilize psychological referral and consultation and, with this, to determine deterrents to such referral and consultation. Such information is vital to insure effective future functioning of the "health care psychologist." In examining the study's findings it is easy to become overwhelmed and to wonder how or whether one can make sense of all these data. However, if the reader steps back from the myriad of numbers, tables, and figures and the concern with whether given "hypotheses" were or were not met then overall themes do emerge. This author will first comment on these themes and then consider their nature and meaning both in terms of what they indicate about the present status of psychological referral and consultation and the implications and information they offer to the future work of the psychologist in the health care sector.

Physicians as a group placed highest value on referral and consultation for severe problems or disorders and lowest on health psychology or behavioral medicine services or health-related problems. Mild mental health problems and liaison-teaching activities also received average to low ratings and thus do not appear to be significant for referral or consultation. These findings are in concordance with those of prior studies on psychiatric consultation as well as clinical lore. Of specific interest, physicians considered assessment and evaluation functions to be of average to little value. Apparently testing is <u>not</u> viewed as the major reason to utilize referral and consultation. Also of interest, while ratings of significance vary widely, physicians indicated utilizing referral for almost the full range of listed psychological

services or problems. Physicians reported frequent referral for severe problems as well as assessment and evaluation services, psychotherapy functions, and for specific health psychology treatments such as stress management, biofeedback, and pain management. This latter finding suggests that physicians may not place high "value" on certain aspects of referral or consultation but may still utilize such services on a frequent basis. Is this perhaps an indirect statement of worth?

This author now believes she was overly concerned with how or whether the three specialties differ in terms of referral and consultation. In retrospect, it may be questioned if the presence of such similarities and differences are of clinical significance. These data were likely overanalyzed and simply helped create more confusion. A synthesis of the tables, figures, and other analyses allows the clearest picture of the practices of the three groups and yields the most useful information. Overall, family practitioners and internists are alike in terms of referral and consultation patterns. This is seen best in the scatterplot configuration. The two specialties gave similar weights to reasons for referral and consultation. Granted this finding goes against initial expectations yet it is still seen as positive in nature. Both areas are "primary care" specialties and likely work with similar populations. It seems desirable that one group does not differ from the other. Perhaps internists, or at least Des Moines and Ames area internists, are family practitioners in disguise? Surgeons take a more constrained approach to referral and consultation. Their ratings, as seen in the scatterplots, were consistently lower than the other two specialties. This finding was not unexpected and is in line with results from previous studies.

Surgeons typically consider referral and consultation for psychological-psychiatric problems to have less value than other groups (Nethercut & Piccione, 1984) except in cases of emergency (Fauman, 1981). While it certainly would be nice to see surgeons adopt a broadened approach to referral and consultation it may not be a necessity. Granted, there are certain psychological services such as preoperative preparation or pain management (Nethercut & Piccione, 1984) that would be of direct benefit to surgeons; however, given the nature and practice of the surgical specialty area (often called in only to perform a specific service, rarely the primary physician, etc.) we may be less concerned with why or how surgeons utilize psychological consultation as other areas may better serve as "gatekeepers".

The rankings of ratings for the internist subgroup do merit comment. Two assessment items--psychodiagnostic testing and evaluation and neuropsychological evaluation--earned the highest ratings and their ratings for most assessment items were higher than the other two groups. This likely accounts for the differences noted in the analyses of variance. This finding, which follows what was expected for the entire sample, is not easily explained particularly given the overall results. It may be something specific to the Des Moines and Ames group, it may have something to do with the types of patients internists see, or it may simply be a quirk of the data. On a global level, however, the rankings of the three specialties largely echo that of the entire group.

In considering the analyses on deterrents to referral and consultation perhaps the primary finding is that physicians do not give high ratings to any of the listed items. There are two possible explanations for this.

It may be that a social desirability factor was in effect with physicians choosing to under-rate the items. This seems unlikely given that the survey was completed in complete anonymity and further physicians would have no particular reasons to "look good" for this study. Nevertheless, the influence of social desirability on responding is a concern for any form of self-assessment data and may well have been significant here. This author did not employ any type of check for this and thus cannot determine its degree of influence. It is equally possible, however, that the given items simply have little impact on the decision to refer or request consultation. These items may not be significant deterrents. Here, too, it is not possible to know if this is the case. Likely both factors are present.

Those items ranked highest, however, do have important implications. Concern over patient upset was one of the highest ranked items for physicians, as a group and by specialty. This is in line with prior findings for psychiatric referral (Mezey & Kellett, 1971; Steinberg et al., 1980) and suggest that this factor also has a negative effect on psychological referral. The physician's and the patient's preference for psychiatric referral and consultation also received high rankings indicating the psychiatrist may well "win" the battle of referral and consultation. This may be considered a validation of what has been seen or felt by psychologists working in the health care sector (e.g., Burstein & Loucks, 1982). Economic concerns also emerge as having impact, lack of insurance coverage for psychological services was highly ranked as a deterring factor. This author's initial assumption, that physicians would not care about the patient's financial state, was naive and unfounded. Orleans et al. (1985) noted that approximately one-third of their

family practitioners sample cited inadequate insurance reimbursement as a major obstacle to effect referral and treatment. It is fair to say that physicians are cognizant of financial realities and will refer or consult accordingly.

The three specialty groups did not show any major differences from one another nor did they differ from the group as a whole. The one exception, and a finding of interest, was the physician's indication of preference to treat the given disturbance or problem him or herself. Family practitioners give higher ratings to this item something apparent both in visual and statistical ($F\ 2, 58) = 6.77$, $P = .002$ analyses. Family practitioners may not refer because they opt to handle the problem themselves. This is consistent with prior findings for mental health or psychiatric consultation (Cohen-Cole & Friedman, 1982; Orleans et al., 1985; Winett et al., 1979) and in line with original expectations. It is odd, however, given the similarity of internists and family practitioners in terms of referral and consultation practices, that the internist group did not rate this as a key factor. Perhaps, similar to what is implied by earlier findings, family practitioner's may both refer and treat and internists may elect to simply refer.

Physicians themselves, had their own comments to make regarding referral and consultation. Many, particularly those made by the subjects eliminated from the final analysis, simply provided further support for preference for psychiatry as a deterring factor. Subjects would specifically state that they typically referred to psychiatry or preferred to refer to psychiatry. Some, as might be expected, used the opportunity to freely respond as an opportunity to vent their spleen against

psychology--"all of these conditions should be referred to a psychiatrist-I do not feel psychologists should be treating people"--as well as to express specific concerns or difficulties with psychological consultation and referral (lack of good psychologists, not cost-effective, slow-turn around for follow-up reports).

Comments were not all negative however. Several physicians were quite complimentary towards our field praising services or indicating willingness to refer in the future. Several, in fact, gave additional reasons for referral and consultation (school problems, evaluation of learning disabilities, use in evaluation for workman's compensation) suggesting receptivity towards the psychologist's work. Physicians, at least some, showed a healthy ability to discriminate between problems suitable for psychiatric referral and those suitable for psychological referral. Various individuals jotted comments such as "psychiatrist first" for items such as psychosis, suicide attempt, and severe depression. This, too, is a good sign indicating judicious use of referral services.

What are the implications of these findings? What do they mean for psychologists? In large part, these findings are positive indicating a favorable present situation for psychology in health care and providing valuable information on how we may promote our work in the future. It is positive to find that physicians place high value on referral and consultation for severe or complex clinical problems, problems which are likely best handled by a specialist. Initially, admittedly, it was this author's belief that the physician should value referral and consultation for <u>all</u> the listed services or problems. Subsequent reading as well as intense experience in a medical setting has indicated that such an

assumption is unfounded, unfair, and unrealistic. The physician should not refer or consult for all mental health or behavioral medicine problems or activities. That is both unnecessary and unwise. Rather, the ideal should be that of selective and judicious use of psychological referral and consultation. These findings indicate that, at least to some extent, physicians are careful consumers of psychological services.

It also seems positive to find that these reported referral and consultation practices and preferences are similar to those for psychiatric consultation (Fauman, 1983; Hull, 1979b; Winett et al., 1979). This implies that psychologists are not seen as "lesser" professionals unable to handle given difficulties. Psychologists appear to be seen as similar to psychiatrists. Some may contend that that is not necessarily a positive finding. That is a matter of personal opinion. At this beginning stage, this author believes that this perceived similarity can only lend to our credibility.

Of course it may well be that physicians were not discriminating between psychiatry and psychology in responding to the survey. They may have been considering mental health consultation and did not specifically answer in terms of psychology. There are indicators, however, that this is probably not the case. As reported earlier, several physicians specifically noted "psychiatrist" beside certain items. Further the item "psychosis", a severe clinical problem and one likely meriting need for some form of mental health referral, earned only an "average" rating. Physicians may not have seen psychology as the primary agent of referral for this problem.

Lest one become too optimistic regarding our seeming equality with

psychiatry it must be pointed out that we are not colleagues yet. Recall that both the physician's and the patient's preference for psychiatry emerged as one of the higher ranked deterrents to psychological referral and consultation. Whether the latter factor is an actual given preference on the part of the patient or the physician's own rationalization for his or her referral behavior isn't known at this point. What is known is that we are still in competition with the field of psychiatry.

Finally, it is now considered positive that an original expectation, physicians placing high value on testing services, was not supported. It is likely to our advantage to not be seen primarily as a psychometrician. Note that physicians did not devalue these services, most gave them average ratings. This suggests assessment and evaluation functions are seen as having some use. Unfortunately, the nature of the project forced the stimulus items to be kept brief. It would be interesting to have physicians assess the value of such services when they have specific case information. They may, for example, consider neuropsychological evaluation quite useful in dealing with head trauma or stroke. The cryptic nature of these items may have resulted in loss of valuable information.

In addition to providing positive indicators regarding the present status of psychology in the health care sector, this survey also offers valuable information for our future work. It does show "what needs to be taught", a goal of this study, both for physicians and for ourselves. Health psychology and behavioral medicine problems and services were generally seen as having little value for physicians, a finding this author attributes to benign ignorance and more specifically a failure to

appreciate the possible benefits of referral. As noted in the survey by Stabler and Mesibov (1984) the physician's lack of knowledge is seen as a major stumbling block in the work of the health psychologist. The education of physicians about health psychology may take place in several ways. It may occur in undergraduate medical education, an area seen as a valuable forum for psychologists (Schofield, 1979). It may occur through continuing education programs, through publication in medical journals, and simply through informal curbside teaching contacts (Nethercut & Piccione, 1984; Stabler & Mesibov, 1984). This education must go beyond simply informing physicians of the nature of our services, it must demonstrate the value of the services. Results from the Nethercut and Piccione (1984) survey suggest that physicians recognize the worth of psychology in medical settings provided the given psychological services are of direct use in patient care. The demand that health care psychologists prove their worth is a legitimate one. Physicians themselves are now being confronted with need to prove the need or worth of given services. They can only ask the same of other caregivers.

In addition to educating physicians about our work we may also educate physicians for their work. The results of this survey suggest that, at least for "mild" problems, physicians may handle a certain amount of psychological problems or needs themselves. This seems particularly true for family practitioners and is in line with prior findings. Physicians would benefit from being taught how they may effectively treat such problems within their own service. Present treatment in the nonpsychiatric sector has observed to be less than optimal and the mental health training for physicians to be deficient.

This education may also serve a corrective function for the physician and possibly for the general public. Patient upset at psychological consultation and referral emerged as a major deterrent to physician referral. Past research on psychiatric consultation indicates patients are largely accepting and cooperative to such referral and consultation (Koran, Van Natta, Stephens & Pascualy, 1979; Schwab, Clemmons, Valder, & Raulerson, 1966; Steinberg et al., 1980). The physician may simply be informed that the perceived upset is not as great as he or she thinks and perhaps, with this, be taught how to present the subject of referral or consultation. At the same time, it does seem likely that patient resistance can be a factor in some cases. Consequently, we may need to educate the general public as well regarding the benefits of our field.

We must also educate ourselves. The fault of ignorance lies on both sides. In order for the psychologist to be effective in the health care sector, he or she must understand that sector (Nethercut & Piccione, 1984). Such understanding must come from our own training and experience. Further we must be aware that our services will not be automatically accepted. As noted earlier, we must prove ourselves in the health care sector. Economic concerns were seen as a key deterrent to the use of psychological services. This means we must be ever mindful of providing "cost effective quality service that has been subjected to quality control (i.e., evaluation of efficacy)" (Nethercut & Piccione, 1984, p. 182) as well as actively working to insure recognition and reimbursement by health care funding agencies.

These conclusions must be tempered by numerous constraints and cautions several of which have already been noted. The sample size is quite small and responding to stimulus items was made in an inconsistent

and idiosyncratic manner thus making interpretation and generalization of the results difficult. The sample is drawn from a limited geographical area which may further limit generalization of the findings. Survey items, particularly those describing deterrents to referral, could have been better written. Such items may have been perceived as confusing or ambiguous making responding difficult. Several subjects, in fact, did comment on the lack of item clarity. The study itself, being exploratory in nature, lacks the control and nonbias of the hypothesis-testing approach. The data justifiably can be interpreted in several different ways.

Interpretation is further constrained by the limitations inherent in a self-report, survey approach. Social desirability factors, as noted earlier, may have influenced the responses. One cannot be certain if the reported practices and preferences match actual behavior. This researcher did not attempt to validate the noted findings. Finally, these results may be biased because of the self-selection in survey responding. In order to protect subject anonymity, as mandated by the human subjects committee, this author could not determine if the responses of those who returned the survey differed in any significant way from those who did not. One notes that this potential self-selection bias could operate in either a positive or negative fashion. On one hand, those who held a favorable attitude towards psychology may have been the ones most likely to return the survey and hence to give an unduly positive evaluation. On the other, those who saw this instrument as an easy soapbox to express their antipathy against our field may well have been most prone to respond and thus present a less favorable picture. If such bias is present it probably consists of both

positive and negative facets.

This project, despite constraints and cautions, does provide valuable baseline information and indicates the need for further study of physician and psychologist interaction. This author would like to see this survey extended to other geographical areas, eventually to achieve a national picture of referral and consultation practices, as well as to other medical specialties. With this it would be useful to validate these self-reports, to determine how these stated attitudes and preferences match behavior. Knowledge may also be expanded in other ways. It is probable that the decision to refer or consult is determined by a number of interacting factors not just need for a given service or treatment for a specific problem. Patient characteristics, specifics of the case or problem, and the like may all act to influence the decision. Research does indicate that certain patients are referred and others are not (e.g., Regier et al., 1982; Schurman et al., 1985). It may be worthwhile to eventually turn to case vignettes or decision-making analyses to elicit specific factors which affect referral and consultation practices. At the same time, significant information can also likely be obtained by having subjects freely describe why they utilize psychological referral and consultation and why they do not. Much can be gained by simply asking the individuals of interest why they do what they do. Overall, this is a timely and important area of study. The more we as psychologists know the more we can do and the more we can become that "health care profession".

ACKNOWLEDGEMENTS

The Iowa State University Committee on the Use of Human Subjects reviewed and approved this project.

This dissertation marks the end of what has been a challenging, interesting, and yes, pleasant graduate career. I wish my acknowledgements to include not only those who played a part in helping me carry out this project but those who helped me reach this final point.

I start by thanking my major advisor, Dr. Wilbur Layton, who has been a source of support and guidance these past five years. I thank my present committee members, Fred Borgen, Harry Lando, Fred Lorenz, and Tom Hannum and past committee members Susan Epps, Charles Cole, and Douglas Epperson.

Craig Oreshnick provided valuable assistance for this project carrying out much of the dirty work of data collection as well as being a friend and supporter. A thank you for him really seems inadequate. I wish Craig the best of luck in his own graduate and professional career.

John Ehrfurth, Joyce Keen, Ron Hilliard, and Richard Spoth were key consultants for this project and also helped, as best they could, to enhance the return rate for my survey. These individuals have long been valuable role models and mentors for me and have had significant influence on the shape of my own career. I thank them all.

John Linton, Tom Ellis, and Jim Doria of West Virginia University were of major assistance in helping me continue with this project while on internship. John and Tom offered significant support and advice, Jim served as my computer expert and tolerated my "hogging" his decwriter for several months. I wish to thank John as well for affording me an

excellent internship experience.

To all those named and unnamed, I thank you.

APPENDIX A

PSYCHOLOGICAL SERVICES INFORMATION SURVEY

I. GENERAL INFORMATION Circle the appropriate response or fill in the blank.

1. Gender M F 2) Age _____ 3) Degree M.D. D.O.

2. Year graduated from medical school 19___

3. Specialty Area
   1. Family practice/general practice
   2. Internal Medicine/Medicine
   3. Orthopedics
   4. Obstetrics-Gynecology
   5. Surgery
   6. Other (specify)_____

4. What is your principal work setting?
   1. Private practice
   2. Health Maintenance Organization
   3. General hospital or clinic
   4. Other (specify)_____

5. What is your present position?
   1. Staff/private physician
   2. Resident
   3. Intern
   4. Medical student

6. With which hospitals are you affiliated? (Circle all that apply)
   1. Iowa Methodist Medical Center
   2. Broadlawns Medical Center
   3. Charter Community
   4. Mercy Medical Center
   5. Iowa Lutheran Hospital
   6. Mary Greeley Hospital
   7. Other (specify)_____

II. REFERRAL AND CONSULTATION PRACTICES

1. a) Have you made any referrals or requested consultations from a psychologist or psychology services within the past year?
   1. Yes 2. No.

   b) If yes, approximately how many?_____

2. a) What services have you used for psychological consultations and/or referrals?
   1. Community Mental Health Center
   2. Psychologist in private practice
   3. Psychology Dept. in general hospital
   4. Child Guidance Center
   5. School Psychologist
   6. Other (specify)_____

   b) Do you have one individual or group you routinely utilize for referral and consultation?
   1. Yes 2. No

   If it is one of the above services please place a check by the number.

3. How would you categorize your overall degree of satisfaction with psychological referral and consultation to date?
   1. Very dissatisfied
   2. Somewhat dissatisfied
   3. Neutral (neither dissatisfied or satisfied)
   4. Somewhat satisfied
   5. Satisfied

III. PSYCHOLOGICAL SERVICES RATINGS

PART I

Below is a list of various inpatient and outpatient problems and psychological services for which you may request services of a psychologist. Please omit referral or consultation to psychiatrists in your response. Respond to each item in the following ways.

First, place a check in the parentheses if you have in the past or presently would refer or request consultation for this problem or service.

Then, using the following scale, rate each item in terms of its importance for you as a reason to seek psychological referral or consultation. Please do this for all the items.

1	10	20	30	40	50	60	70	80	90	99
This is of no importance					Average Importance				This is of utmost importance.	

To illustrate this rating process, if you consider neuropsychological evaluation a significant reason for consultation or referral for one of your patients--one you would nearly always refer--you might give it a "90". On the other hand, if you think that personality assessment is a potential, but not highly important reason for you to refer or request consultation, you might give it a "40".

Of course your decision to refer or consult and your rating of importance may vary according to the patient, the problem, and the situation. Please consider what you do overall and try to describe your general approach to referral and consultation.

Have/Would Refer	Your Rating	
( )	_____	1. Mild depressive symptoms.
( )	_____	2. Intellectual Evaluation.
( )	_____	3. Stress Management.
( )	_____	4. Alcohol/Drug Abuse.
( )	_____	5. Personality Assessment.
( )	_____	6. Pain Management.
( )	_____	7. Adjustment to hospitalization.
( )	_____	8. Recent suicide attempt.
( )	_____	9. Biofeedback.
( )	_____	10. Prolonged grief reaction.
( )	_____	11. Neuropsychological Evaluation.
( )	_____	12. Eating Disorder (bulimia, anorexia nervosa, obesity)
( )	_____	13. Assist in management of patient.
( )	_____	14. Symptoms of severe anxiety and tension.
( )	_____	15. Sexual dysfunction/sexual concerns.
( )	_____	16. Provide education on psychological/ behavioral health issues.
( )	_____	17. Psychodiagnostic Testing and Evaluation.
( )	_____	18. Smoking Cessation.
( )	_____	19. Severe Depression.
( )	_____	20. Patient presents with somatic symptoms, all organic causes have been ruled out.
( )	_____	21. Adjustment to major life event (divorce, job change, etc.
( )	_____	22. Counseling/support for patient's family.
( )	_____	23. Assist in patient's adjustment to major illness or injury.
( )	_____	24. Mild symptoms of anxiety and tension.
( )	_____	25. Psychosis.
( )	_____	26. Patient refuses to comply to medical regimen.
( )	_____	27. Management of hypertension.
( )	_____	28. Family counseling/marital or couples counseling.
( )	_____	29. Patient is terminally ill.
( )	_____	30. Assist in determining appropriateness for given treatment.
( )	_____	31. Suspect patient is victim of abusive home situation.
( )	_____	32. Adjustment to general surgery.

Are there other reasons you refer or consult with a psychologist? If so, please list them.

II.

Now please consider factors which may work to determine your decision against psychological referral or consultation for a particular patient. Below is a list of such possible factors. Please rate the degree of impact of each reason in your decision to not seek psychological referral or consultation using the following scale:

1	10	20	30	40	50	60	70	80	90	99
This has no impact				Average Impact				This has utmost impact		

To illustrate, if your patient's negative reaction to psychological referral or consultation is a major factor in your decision to not seek referral or consultation you might rate it a "95". On the other hand, this may not have a significant influence on your decision and thus you may rate it a "20".

Your Rating

____ 1. The patient will become upset by the referral or consultation.
____ 2. There is a shortage of available psychological services for psychological referral or consultation.
____ 3. One individual should maintain sole charge of the patient's treatment regimen.
____ 4. Psychotropic medication is more cost-effective in treating psychological problems.
____ 5. Psychologists do not provide adequate communication or follow-up after referral or consultation.
____ 6. Patients will not follow through on psychological referral.
____ 7. The patient's insurance will not reimburse for psychological treatment.
____ 8. Psychological or behavioral interventions are of little benefit for my patients.
____ 9. The medical problems I deal with must take precedence over psychological issues in treatment.
____ 10. I don't have the time to consider psychological issues and determine the need for referral and consultation.
____ 11. I prefer to refer to psychiatrists.
____ 12. Referral or consultation will negatively affect my rapport/relationship with the patient.
____ 13. I prefer to treat psychological/behavioral problems myself.
____ 14. The given psychological/behavioral disturbance is not serious enough to warrant referral or consultation.
____ 15. The patient prefers to receive psychiatric referral or consultation.
____ 16. Response to my referral or consultation request is too slow.

Are there other factors which influence your decision to not refer or consult with a psychologist? If so, please list them below.

Comments.

Thank you.

APPENDIX B

Dear Physician:

You are one of a selected group of Des Moines and Ames area physicians being asked to provide information on present psychological referral and consultation practices. Your response is very important if the results are to be useful and accurately represent physician's views. It will be much appreciated if you will complete and return the enclosed inventory as soon as possible, it should take only a few moments of your time. It has an identifier for mailing and coding purposes but be assured that your responses will be completely confidential and your name will never be placed on the inventory.

As you are well aware, physicians and other health care professionals are facing increased pressure to provide optimal patient care in the most effective manner. At various points, you may have referred or consulted with a psychologist for a specific service or problem. You may or may not have been pleased with the outcome of this referral or consultation. Psychology is now faced with a need to determine an optimal role for itself in the health care system. As a start, it is important to first determine how physicians work with psychologists now. Why do you refer or consult with a psychologist? What makes you choose not to refer? Such information will allow psychologists to determine how to best serve your needs as physicians.

Again, your response to this inventory is very important. Please complete and return it today.

Thank you for your assistance.

Elizabeth Kalb
Psychology Graduate Student

Wilbur L. Layton, Ph.D.
Chair, Psychology Department

P.S.

Craig Oreshnick or Dr. Layton will be happy to answer any questions you may have. You may write to either at the above address or call (515) 294-1742.

APPENDIX C

Last week you received a questionnaire about your use of psychological services for your patients. Your name was selected from physicians in the Des Moines and Ames area.

If you have already completed and returned this inventory, I offer my sincere thanks. If you have not, please complete and return it as soon as possible. This inventory has been sent to a small but selected group of Des Moines and Ames physicians. Consequently, your response is very important if the results are to be useful and accurately represent physician's views.

If you have not received this inventory or have misplaced it, please call the Psychology Department at (515) 294-1742 and one will be mailed to you right away.

Elizabeth Kalb
Psychology Department
Iowa State University

APPENDIX D

Dear Physician:

Approximately three weeks ago you received an inventory requesting information about your use of psychological services for referral or consultation. As of today, I have not received your completed inventory.

This project was undertaken to determine the current "state of the art" of psychological referral and consultation by physicians. Such information will allow psychologists to determine their optimal role in the health care system and to better serve you as a physician.

I am writing because each inventory is of utmost significance to the usefulness of this study's results. You are one of a selected group of Des Moines and Ames area physicians asked to respond. You can provide vital information and serve as a valuable representative of physicians' views. It will be much appreciated if you would take a few moments and complete this questionnaire.

A new questionnaire has been enclosed in case the first has been misplaced.

Thank you very much.

Elizabeth Kalb
Psychology Graduate Student

Wilbur L. Layton, Ph.D.
Chair, Psychology Department

APPENDIX E

Dear Resident:

You are one of a small but selected group of Des Moines and Ames area physicians being asked to provide information on present psychological referral and consultation practices. As you are aware, physicians and other health care professionals are facing increasing pressure to provide optimal patient care. With this, psychology is now working to determine the ideal role for itself in the health care system. As a start, it is important to determine how physicians work with psychologists now. Why do you refer or consult with a psychologist? What causes you to choose to not refer? Such information will allow psychologists to determine how to best serve your needs as physicians.

Completion of this inventory is entirely voluntary. Your individual responses will be completely confidential and your name will never appear on the inventory. Please do not place your name on the questionnaire. The letters in the upper right hand corner are for coding purposes only.

A return envelope has been provided for your convenience. Please try to complete and return this inventory as soon as possible.

Your response to this questionnaire will be much appreciated. It will insure that the results are useful and accurately represent physicians' views.

If you have any questions or concerns you may contact Dr. Ron Hillard of the Broadlawns Family Health Center or you may write or telephone Craig Creshnick or Dr. Wilbur L. Layton of the Iowa State Psychology Department at the above address.

Thank you very much.

Sincerely,

Elizabeth A. Kalb
Psychology Graduate Student

Wilbur L. Layton
Chair, Psychology Department

APPENDIX F

Table 18. Subject characteristics and referral practices-Broadlawns residents

Subject characteristics			
Gender		n	%
Male		8	39
Female		1	11
Age			
M	30.00		
SD	3.57		
Range	27 to 38		
Degree		n	%
M.D.		9	100
Referral and consultation practices			
Past history of use		n	%
Yes		9	100
Number referred			
M	12.13		
SD	11		
Range	3 to 35		
Rated degree of satisfaction			
M	4.89		
SD	.333		
Range	4 to 5		

Note. %=Percentage of Broadlawns Sample n=9. Table does not include missing or unknown responses.

Table 19. Ratings of reasons for referral and consultation-Broadlawns residents

Rank	Item	Category	Rating M	Rating SD	n	%
1.	Psychosis (25)	General	80.00	10.00	5	56
2.	Recent suicide attempt (8)	General	77.86	26.12	7	78
3.	Eating disorder (12)	Health	76.67	12.25	9	100
4.	Severe depression (19)	Health	71.75	28.39	8	89
5.	Alcohol/drug abuse (4)	Health	71.00	27.00	9	100
6.	Patient presents with somatic symptoms, all organic causes have been ruled out (20)	General	67.50	20.53	8	89
7a.	Stress management (3)	Health	66.67	22.36	9	100
7b.	Adjustment to major life event (21)	General	66.67	28.28	9	100
8.	Neuropsychological evaluation (11)	Assessment	66.25	22.00	8	89
9.	Symptoms of severe anxiety and tension (14)	General	65.56	25.06	9	100
10.	Family counseling/marital or couples counseling (28)	General	64.44	22.97	9	100
11.	Psychodiagnostic testing & evaluation (17)	Assessment	63.33	20.00	9	100

Table 19 Continued

Rank	Item	Category	Rating M	SD	n	%
12.	Suspect patient is a victim of abusive home situation (31)	General	62.50	23.15	8	89
13.	Sexual dysfunction/sexual concerns (15)	Health	60.00	20.62	9	100
14a.	Prolonged grief reaction (10)	General	57.50	23.15	8	89
14b.	Counseling/support for patients family (22)	Health	57.50	19.09	8	89
15.	Assist in management of patient (13)	Liaison	54.44	21.86	9	100
16.	Intellectual evaluation (2)	Assessment	48.89	25.71	9	100
17.	Mild symptoms of anxiety & tension (24)	General	47.89	27.98	9	100
18.	Smoking cessation (18)	Health	45.13	28.56	8	89
19a.	Patient is terminally ill (29)	Health	45.00	17.73	8	89
19b.	Pain management (6)	Health	45.00	26.19	8	89
20.	Mild depressive symptoms (1)	General	41.57	27.09	7	78
21a.	Education on psychological/behavioral health issues (16)	Liaison	40.00	23.10	7	78
21b.	Assist in adjustment to illness or injury (23)	Health	40.00	20.82	7	78

Table 19 Continued

Rank	Item	Category	Rating M	SD	n	%
22.	Personality assessment (5)	Assessment	39.44	24.30	9	100
23.	Patient refuses to comply to medical regimen (26)	Health	38.75	26.42	8	89
24.	Biofeedback (9)	Health	30.13	23.73	8	89
25.	Assist in determining appropriateness for given treatment (30)	Assessment	21.67	14.72	6	67
26.	Management of hypertension (27)	Health	20.29	16.94	7	78
27.	Adjustment to general surgery (32)	Health	20.00	12.64	6	67
28.	Adjustment to hospitalization (7)	Health	17.29	13.60	7	78

Table 20. Ratings of factors which may deter referral and consultation-Broadlawns residents

Rank	Item	Category	Rating M	SD	n	%
1.	The given disturbance is not serious enough for referral (14)	General	66.67	18.71	9	100
2.	The patient prefers psychiatric referral (15)	Political	42.33	32.16	9	100
3a.	I prefer to treat the problems myself (13)	General	42.22	22.24	9	100
3b.	The patient will become upset by psychological referral (1)	General	42.22	23.33	9	100
4.	Patients will not follow through on psychological referral (6)	Philosophical	41.11	23.15	9	100
5.	Response to my request is too slow (16)	General	37.22	30.53	9	100
6.	Medication is more cost-effective (4)	Political	32.22	25.39	9	100
7.	I prefer to refer to psychiatrists (11)	Political	31.22	26.17	9	100
8.	Medical problems must take precedence in treatment (9)	Philosophical	31.11	18.33	9	100
9.	There is a shortage of available services (2)	General	30.11	24.34	9	100
10.	The patient's insurance will not reimburse for psychological services (7)	Economic	29.11	29.53	9	100

Table 20 Continued

Rank	Item	Category	Rating M	Rating SD	n	%
11.	Referral will negatively affect my relationship with the patient (12)	General	27.78	19.22	9	100
12.	One individual should maintain sole charge (3)	Philosophical	25.67	20.53	9	100
13.	Psychologists do not provide adequate communication or follow-up (5)	General	23.22	28.83	9	100
14.	I don't have the time to consider issues and need for referral (10)	Philosophical	17.89	14.67	9	100
15.	The interventions are of little benefit (8)	General	15.67	8.60	9	100

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