Comprehensive Psychiatry

(Official Journal of the American Psychopathological Association)

VOL. 39, NO. 4 JULY/AUGUST 1998

Why Women Are Less Likely Than Men to Commit Suicide

George E. Murphy

Major depression forms the background of upwards of half of all suicides. Women are twice as likely as men to experience major depression, yet women are one fourth as likely as men to take their own lives. Current and past explanations of this paradox are built on androcentric assumptions that women are deficient in some way. The reverse may be true where suicide is concerned. Men value independence and decisiveness, and they regard acknowledging a need for help as weakness and avoid it. Women value interdependence, and they consult friends and readily accept help. Women consider decisions in a relationship context, taking many things into consideration, and they feel freer to change their minds. It is argued here that women derive strength and protection from suicide by virtue of specific differences from men. Factors that protect women from suicide are opposite to vulnerability factors in men.

UNCOMPLICATED MAJOR DEPRESSIVE disorder has been found to underlie upwards of half of suicides in study after study.[1-3] In addition, depression has been found as a comorbid or complicating condition in 55% to 70% of substance abusers who have taken their lives.[4,5] Women are twice as likely as men to experience major depression,[6,7] yet women in the United States commit suicide at only one fourth of the rate that men do. The female to male (F:M) ratio of committing suicide is somewhat lower in Europe, but the difference is always in the same direction and, with one exception, never less than 1:2. The same is not necessarily true in the Orient, where women may at times predominate in self-destruction.[8] Because of the wide variation around the world in both suicide rates and the F:M ratio of suicides,[9] it is important to understand that the present discussion is confined to experience in the United States. It may also be pertinent to western Europe.

Earlier efforts to explain the large difference in suicide rates between men and women have centered on the reversed sex ratio in parasuicides (inaccurately called suicide attempts[10]) and the preponderant choice of drug overdose by women in both suicide and parasuicide. Supposedly, large numbers of women survive intended suicide by virtue of inept management of drug ingestion.

There is a surface plausibility to this argument that has attracted various authors.[11] What is the relative proportion of parasuicides to suicides? In the most thorough investigation of the matter, Parkin and Stengel[12] found a ratio of 9.7:1 in Sheffield, England. Estimates based on less comprehensive data, or none, range from 5:1 to 100:1.[13] Although the ratio may have widened in recent years, a precise figure is elusive. An unknown, but finite number of parasuicides do not come to medical attention at all. Others are euphemistically entered in hospital emergency department records simply as "laceration" or "accidental poisoning." It is unlikely that a better grounded estimate will be produced than that of Parkin and Stengel.

PARASUICIDE AS FAILED SUICIDE

If we assume, conservatively, 10 parasuicides for every suicide, then for the roughly 30,000 suicides annually, there would be 300,000 parasuicides. Two thirds (200,000) of these are by women.[9,14] Drug overdose accounts for 80% of these, or about 160,000 events annually. This reservoir clearly could have absorbed the putative 18,000 failed suicides that would establish parity in suicide

From the Department of Psychiatry, Washington University School of Medicine, St. Louis, MO.

Address reprint requests to George E. Murphy, M.D., Department of Psychiatry, Washington University School of Medicine, 4940 Children's Place, St. Louis, MO 63110-1093.

0010-440X/98/3904-0007$03.00/0

between the sexes (and raise the annual number of suicides to 48,000!). However, those who die by their own hand have been highly purposive in their action. Are we prepared to assume both massive ignorance and ineptitude on the part of tens of thousands of women would-be suicides in their employment of hypnotics and sedatives and a remarkable passivity that other means would not be sought?

Descriptively, parasuicides are a different population from suicides, with an overlap, as was earlier pointed out by Stengel.[15] They are predominantly women (>2:1), mostly under the age of 40 years. While half or more may exhibit one of the high risk psychiatric diagnoses, others may have a personality disorder and up to one third will qualify for no axis I psychiatric diagnosis.[16,17] Parasuicides characteristically act impulsively, make provisions for rescue (others present or notified), and employ slowly effective or ineffective means.[18] Their purpose is to survive and (usually) to send a message to another person, the "appeal function" cited by Stengel.[15] Up to 60% of parasuicides may claim a lethal intent, but according to Kessel,[19] "little credence can be placed on these statements.... What they were attempting was not suicide." On long follow-up, fewer than 12% will ultimately take their lives.[20] That high figure is based on a population hospitalized for the prior act and is not generalizable to those untreated.

Suicides have quite opposite characteristics. Males predominate (4:1); risk increases with age in men, much less so in women (Fig 1). Nearly all (>95%) are suffering from one or more major psychiatric illnesses. They usually plan the act, take precautions to avoid interruption, and chiefly use rapidly effective, generally irreversible means. Their purpose is to die. Survivors sometimes speak of "a gamble with death." Suicides rarely have left the outcome to chance, and the great majority succeed on the first attempt. To be sure, a high proportion of suicides have communicated their intention–or at least some of their thoughts regarding self-destruction–well in advance of the fatal act. However, we concluded, on the evidence of 134 consecutive suicides, the communication that had occurred was either nonpurposive or preparatory, but not intended as a "cry for help" with an expectation of rescue.[21]

Men and women alike overwhelmingly choose drug overdose in parasuicide. The traditional pharmacologic agents, barbiturate hypnotics and sedatives, have a dose-related gradient of endangerment and a relatively slow rate of action. Thus, the chance of survival is increased, in contrast to all-or-nothing means such as gunshot, hanging, and carbon monoxide. The illusion of lethal intent is achieved with limited risk, while opportunity for rescue is preserved. Some would-be suicides may survive an overdose through uninformed choice of

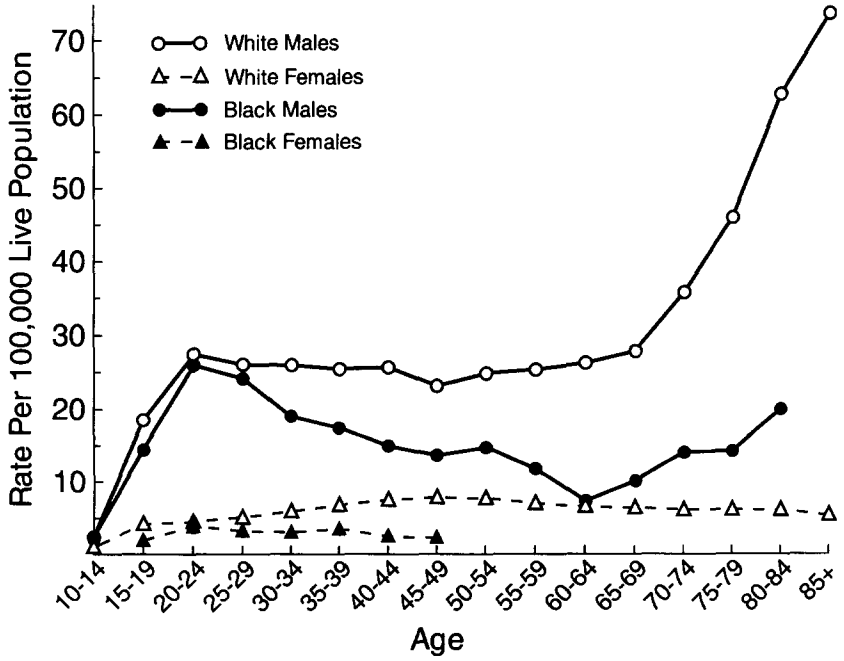

Fig 1. Suicide rates in the United States by age, sex, and color, 1992.

drug, insufficient dosage, or timely, but unplanned, discovery,[22] but they are a small minority. Parasuicide does entail risk but is only infrequently a failed suicide.

EXCHANGING MEANS OF SUICIDE

Benzodiazepines have, in the past 20 years, replaced barbiturates and other, even more dangerous, hypnotics in the medicine cabinet. They are characterized by a wide therapeutic safety margin. Serotonin reuptake inhibitor antidepressants, again with low direct toxicity, have made deep inroads into the domain of the highly toxic tricyclic antidepressants. The ascendancy of these newer agents over the traditional drugs of overdose could be expected to increase survival. The rate of suicide in women, both black and white, has, indeed, declined (albeit nonsignificantly) since 1975 (Fig 2), but a causal relationship is not certain. The proportion of suicides by overdose had begun its decline a decade earlier. Meanwhile, women's use of firearms and explosives (of which <1% is attributable to explosives) has been on the rise since 1966. Their rate of self-inflicted death by gunshot actually crossed the downward trend of overdose in 1974. The latest figures for suicide methods employed by women show firearms in 42% of cases[23] and drug overdose in 27% of cases.[24] This substitution of an abruptly fatal means for a gradual and reversible one could be expected to produce more deaths among women. That it has not, deeply undermines the hypothesized accidental survival explanation of women's lower suicide rate. The much lower official suicide rate in women is unlikely to be traceable to choice of method.

Walsh et al.[25] have argued that many suicides of women in Ireland are hidden by coroners' misclassification of drug overdose deaths and drownings as accidental. But the ascertainment standard in the British Isles is more restrictive than that in use elsewhere.[26] The applicability of such findings to other nations is questionable at best. There is United States–based literature on a hypothesized underrecognition of suicide for which neither Kleck[27] nor O'Carroll[28] has found published support. Evidence is also lacking of a significant sex differential in this regard. In fact, one experimental study "provides marginal support for bias in favor of [recognizing] female suicide"[29] (see also Murphy[22]).

MEN, ON THE PSYCHOLOGY OF WOMEN AS IT RELATES TO SUICIDE

Apart from the ineptitude hypothesis, there has been no shortage of condescending and chauvinistic assessments of the characteristics of women that are presumed to account for their lesser inclination to suicide. Durkheim,[30] on women: "Her sensibility is rudimentary rather than highly developed. . . . [S]ociety is less necessary to her because she is less impregnated with sociability. She has few needs in this direction and satisfies them easily."[(p.215)] "[G]enerally speaking, her mental life is less developed. . . . Being a more instinctive creature

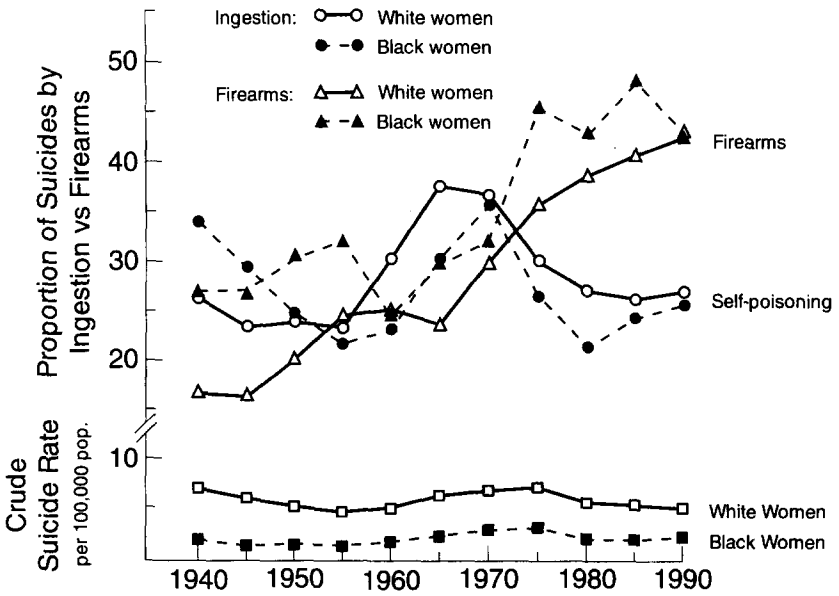

Fig 2. Changes in suicide means and suicide rates among women, 1940 to 1990.

than man, woman has only to follow her instincts to find calmness and peace."[p.272]

Schneider[31] is reported by Neuringer[32] to have "argued that women are more distractable than men, and, therefore, not able to intellectually plan a successful suicide." Neuringer,[32pp.45-46] himself, explains women's escape from suicide thus: "Women have had social sanction to be passive, 'inept' and to declare and display their emotional perturbations. Women have also had socially sanctioned resources to ease psychological pain (crying, fainting, illogical thinking, physical weakness, tantrums, etc)." Lester[33p.40] hypothesizes physical incompetence of women as a differential factor. "The acts of firing a gun, plunging a knife, or kicking a chair away may all be more difficult for a woman because of her lesser strength. . . . [F]emales prefer barbiturates and poisons, methods that require less physical exertion and strength than other methods of suicide."

On a less pejorative note, Sainsbury,[34] accepting the suicide data as sound, thought the lack of parity "might be a manifestation of the basic biological or psycho-biological differences between the sexes." He thought further that "it might also be readily understood in social terms" (meaning social status, not social relationships).

Stengel[35p.115] found insufficient the "common answer . . . that men use more dangerous methods than women and that therefore fewer men than women survive suicidal acts." But he concluded tautologically, that "Males . . . appear to be more suicide prone than females, while the latter seem more prone to suicide attempts." Our male-dominated profession seems satisfied with the view that women are simply physically inept and cognitively underdeveloped. Gilligan[36p.14] states: "when women do not conform to the standards of psychological expectation, the conclusion has generally been that something is wrong with the women." This androcentric "deficiency" model[37] represents a gross misperception. Women are different, indeed, but in no way limited. What I propose to show is that their difference is protective, not least in the matter of suicide.

PROTECTIVE FACTORS FOR WOMEN

Canetto,[38] parallelling Stengel[35p.116] points out that "women hold on to life more than men: Women have a seven-year advantage in life expectancy. Women are less likely than men to engage in self-destructive lifestyles, such as chronic use of alcohol and illicit drugs or criminality, or to die a violent death, such as in a motor vehicle accident or a homicide." Women smoke less than men, and their rate of alcoholism is about one sixth that of men.[39] Those psychosocial reconstruction studies ("psychological autopsies") that report their data by sex (Table 1)[1,40-47] show a 1:2 proportion of female alcoholic suicides to male. Rich et al.[42] comment: "Given that the rates of suicide or depression and alcoholism are relatively stable, it follows that the greater suicide rate in men could partly be due to their greater rate of alcoholism." Women are also much less given to impulsive action. In late adolescence and early adulthood, when impulsive suicides are more common than later,[48] the rate differential rises to 1:5 (age 15 to 19) and then to 1:6.8 (age 20 to 24).[24]

Table 1. Proportions of Selected Diagnoses in Male versus Female Suicides

			Affective Disorder				Alcoholism			
			Males		Females		Males		Females	
Authors	Males	Females	No.	%	No.	%	No.	%	No.	%
Robins et al., 1959[1]	103	31	42	41	18	58	27	26	5	16
Barraclough et al., 1974[40]	53	47	39	57	34	72	12	23	3	6
Beskow, 1979[41]	270	0	28	10			31*	11		
Rich et al., 1988[42]	143	61	56*	40	32*	53	60*	43	20*	33
Arató et al., 1988[43]	103	97	67*	65	49*	51	11*	11	5*	5
Åsgård, 1994[44]	0	104			61	59			7	7
Henriksson et al., 1993[45]	172	57	93*	54	38*	67	82*	48	15*	26
Lesage et al., 1994[46]	75	0	41*	54			22	29		
Wolfersdorf, 1995[47]	326	128	196*	60	104*	81	117	36	12	9
Totals	1,245	525	562		336		362		67	
Principal diagnosis				**45**		**64**		**29**		**13**

*Multiple diagnoses.

SOCIETAL ATTITUDES TOWARD SUICIDE AND ATTEMPTED SUICIDE

A number of authors have reported evidence of a difference in social acceptability of suicide and attempted suicide for males versus females. It is proposed that these cultural values may constrain females against suicide and males against suicide attempts. College students, presented with case vignettes depicting suicidal crises, rated suicide by either males or females as more masculine and potent than suicide attempt.[49] In another study, suicide was rated as not acceptable for either sex. However, "suicides by females were rated as significantly more 'foolish', 'weaker', more 'wrong', and less 'permissible' than suicides by males." Female raters had stronger opinions on all of these points.[50] With female college students empathetic to suicide attempt in either sex, males condemned suicide attempt in males.[51] To the extent that opinions of college students on these issues are a fair representation of a consensus among adults, it may be taken that females may view suicide attempt as acceptable but suicide as not acceptable. This attitude might have protective value in crisis situations. Males, in contrast, would lack freedom to express frustration or distress by means of a suicide attempt, but be less constrained against suicide. That observed behaviors conform to this pattern lends credence to the proposition. There are other factors to be considered as well.

PSYCHOSOCIAL DIFFERENCES BETWEEN WOMEN AND MEN

First, women's cognitive operations appear to be considerably more complex than those of men. Their thinking is more inclusive.[36(pp.70-71)] In a recent magnetic resonance image (MRI) study, identical mental tasks produced left unilateral activation in men, but bilateral activation in the brains of women.[52(p.860)] Although capable of employing Aristotelian logic, women, in general, are not limited by it as men are disposed to be. This gives rise to many frustrating exchanges between spouses, for example, with the man not understanding—or not appreciating—that the woman's conceptual framework is not so tightly restricted. Men find this maddening and are inclined to conclude that women are confused in their thinking, when in actuality they are operating from a different set of premises and priorities. Men are socialized (and perhaps biologically programmed) to value decisiveness, and this calls for the simplification of concepts to assist in reaching that goal. A woman will seek a balance among a wider range of concerns rather than hierarchical elimination of some or many of them.[36(p.147)] The inclusiveness of a woman's thinking may protect her from so easily reaching the ultimate conclusion.

Men, in their social relationships, interact socially around external matters—sports, business, politics, hobbies. Feelings are not considered a fit subject for discussion. Revealing feelings of depression and of hopelessness is to acknowledge vulnerability and is nearly unthinkable. In the competitive world of men, displaying weakness gives advantage to others, and men do not consider it good form to do so. Men will even conceal the depth of their despair from the psychiatrist or counselor they have reluctantly agreed to consult, and the decision to commit suicide is taken alone.

Gilligan[36] finds that "[i]n response to the request to describe themselves, all of the women describe a relationship, depicting their identity in the connection of future mother, present wife, adopted child, or past lover. . . . Thus, in all of the women's descriptions, identity is defined in a context of relationship and judged by a standard of responsibility and care." In contrast, "although the world of the self that men describe at times includes 'people' and 'deep attachments', no particular person or relationship is mentioned, nor is the activity of relationship portrayed in the context of self-description. Replacing the women's verbs of attachment are adjectives of separation . . . the male 'I' is defined in separation." "Instead of attachment, individual achievement rivets the male imagination, and great ideas or distinctive activity defines the standard of self-assessment and success."[(36,pp.159-163)] Social embeddedness supports the woman; isolation and competition characterize the man.

Nolen-Hoeksema,[53] in her search for an explanation of women's greater vulnerability to depression, finds their contemplative nature a liability factor for lowering mood. She views men's more action-oriented nature as tending to reduce depression, whatever the source of depression. One could then suppose that a man's failure to reduce his depression by customary action might drive him to the ultimate act. The woman, similarly afflicted, would more likely endure.

Most women, from early on, have learned to "process" their experiences with friends. Through

these discussions, they can ameliorate negative impact and integrate their experiences into the broader framework of their lives. Few men do that, and they expect to handle problems themselves. This can leave issues unresolved that may reemerge to create dissonance and unease.

Women, in their interaction with other women, devote much of their time to feelings. They are free to share them, to receive emotional support from other women, to ask for and to accept help. That can lead to earlier referral to medical and psychiatric care, and it is a fact that substantially more women than men receive such care. It is my clinical experience that they are better at accepting and cooperating with it, and there is much protection in that.

Men have little freedom to ask for and to accept needed help. It has been suggested facetiously that they "lack the gene" for recognizing the "lost" condition. They perceive "asking for help" as an admission of incompetence,[54(p.181)] a seemingly dreadful flaw. Women do not view the need for help as reflecting negatively on themselves or as something to be avoided.[54] Their greater willingness to seek help may be a more accurate explanation of the higher rate of parasuicide, as well as the lower suicide rate in women than the pejorative psychologizing of the past.[55]

Concern for the rights and feelings of others is deeply embedded in women's thinking.[36] Awareness of the potential impact on others can weigh heavily in considering suicide, as in more mundane matters. Concern for the family's welfare may take precedence over a wish for surcease (and be even more marked among African-American women, who have the lowest suicide rate of all). The capacity for selfless love is not evenly apportioned between the sexes.

The decisiveness that men cultivate and esteem erects a barrier to reconsideration. Once the decision to suicide is taken, the likelihood of its being reviewed is limited. The overwhelming choice of rapidly effective, irreversible means of suicide both reflects and reinforces the commitment. Women are much freer to change their minds; weighing and reweighing the consequences of the act for others or herself may change her mind without losing self-esteem. Embarked on suicide, she may rethink the matter and rescue herself before the overdose produces unconsciousness or before the final outcome of pull of the trigger of a firearm. This, too, may be part of the protection women enjoy. The changing pattern of women's choice of method (Fig 2) refutes the notion that the misapplication of ingestants accounts for the much lower rate of suicide among women.

The suicide rate of white men ascends steeply from age 65 onward (Fig 1), the common age for retirement from regular employment. In women, age 55 marks a downward inflection that continues to the end of the lifespan. At retirement, men lose not only a major source of interpersonal contact and the camaraderie of the workplace, they also lose a primary source of self-esteem as the role of provider. Many men are poorly prepared for this loss of role. They begin to die off at an increased rate–not least from suicide. Widowerhood further increases the risk. While marriage is protective for both sexes, it is more protective for men and its loss is more damaging to them.[56] Few men esteem domestic activities as they are not skillful in them. If they must take them on, they may feel diminished.

Retirement from gainful employment has a different impact on women. Work was typically in addition to the major domestic role, which does not change and has the value of familiarity and competence. Yet, women in retirement find themselves financially disadvantaged compared to men, owing to lower pay for equal work, lower status jobs, and lower likelihood of being covered by a retirement plan.[57] Women aged 65 and beyond are 3½ times more likely than men to be widowed and nearly three times as likely to live alone. "Households headed by older women are almost twice as likely as those headed by older men to have incomes below the poverty threshold."[58] Yet, their suicide rate continues its gradual decline with age. Those individuals over 60 (both sexes) who do commit suicide are "significantly less likely to have financial problems as stressors."[59] Retirement may bring economic hardship to women, but it does not bring suicide.

Men have for too long stroked their egos with the unjustified belief that they are the stronger sex. Apart from physical musculature, women are the better put together from the standpoint of survival; however, this does not mean that they are less troubled. Women report more "stress" than men, and, in general,[60] they experience more anxiety disorders, phobias, panic, and somatic symptoms.[61] In addition to more parasuicides,[9,14] women more

often report thoughts of committing suicide, wanting to die, death, feeling hopeless, and feeling depressed[62,63]; however, despite all of this, they live longer. Women have internal protection that men have not dreamed of, and the difference in the suicide rates reflects it.

LOSS OF PROTECTION

If these factors are protective of women, we might expect to find them lacking among suicides. I have at my disposal the original interviews from two psychosocial reconstruction studies of the antecedents of self-destruction. The larger one, consisting of 134 consecutive suicides, is the first such investigation ever, and was conducted by Dr. Eli Robins in 1957 and 1958.[1,64] The other is my later (1968 to 1971) study of 50 alcoholic suicides.[65] Between the two studies, there were 13 women diagnosed with alcoholism, and 18 diagnosed with major-depressive disorder. In the records, interrelatedness can be assessed in terms of social support, which includes supportiveness of spouse and closeness of friends. The depth of the inquiry into life circumstances and changes gives, in most cases, a reasonably clear picture of interrelatedness and the lack of it.

The women were profoundly isolated in my study of suicide in alcoholics.[22] They lacked any form of emotional support, and nearly all had deliberately cut themselves off from friends. Their spousal relationships were distant, at best. These women lacked others with whom to share feelings, with whom to consult, others to care about them, and about whom to care. One, both mentally regarded and schizophrenic, may have had family support, but she related poorly. In addition, she had recently been rejected by her long-time lover, and her brother had been killed just hours before she took her life.

Among the women in the original suicide study,[64] too, there was isolation. There were four women in whom this could not be assessed, owing to lack of a primary informant. (That, in itself, may reflect isolation.) In fewer than one third (29%) of the women, the record showed fair to good social support in the final months of their lives. It is my perception that for women, living with a spouse who is emotionally distant is more likely to give rise to despair than is simply living alone. The putative protective factor of interrelatedness was widely lacking among these women who took their own lives. Absent were both the others to be considered and the opportunity to consult and to be nurtured.

The men, too, were isolated. Among those diagnosed as alcoholic, the final loss of a relationship was often quite recent.[65,66] The loss appeared to have played a major role in those suicides. Among the remainder, an equal or greater number was threatened with loss. Many, perhaps most men, lead relatively isolated lives anyway, even if married and relating to their families in their accustomed way.[36(p.154)] Their relationships are much more about doing than about being. Unemployment was more common than expected, whether by loss of a job or by retirement owing to illness or age. With the end of work there was a sharp decline in their most available source of socializing. But informants more often cited loss of status as important.

The importance of family in the lives of most women would justify a prediction that having minor children in the home, would be protective. Durkheim[30] believed that to be true. It proved not to be the case in five instances of 28. Two women with major depression and three with alcoholism left minor children behind. One alcoholic woman, with mental retardation and schizophrenia, and one with sociopathic features, had been chronically neglectful of their offspring. The other, violent when drinking and with a history of eight previous suicide attempts, was very drunk when she took her life. One depressed woman was said to have been "devoted to her large family." Her depression was not described as either particularly severe or delusional. (The entire story was so atypical as to merit major doubt.) The other history was sparse and shed no light on relationships. These findings do not necessarily undermine the worth of protective factors; protection is finite, not absolute.

OCCUPATION AS A RISK FACTOR

Cognitive complexity would be difficult or impossible to assess second hand, but there are suicide data regarding women in three male-dominated professions that are both highly cognitive and highly structured. Studies of death certificates among physicians,[67,68] chemists,[69,70] and psychologists[71] show the women members of these professions to have three or more times the expected number of suicides for their sex. Their suicide rates equaled or exceeded those of men in the same

professions. Various opinions have been offered to explain this startling phenomenon. They include self-selection of women at high risk for suicide into professional training, marginality, role conflict,[71] personality characteristics shared with male physicians—competitiveness, compulsivity, individualism and professional ambition[69]—and a proposed 65% morbid risk of major depression in women in medicine.[68] Perhaps it will do to say that, for whatever reason, these women have chosen careers emphasizing a rather high degree of cognitive rigor. Adherence to such disciplines might tend to compete with some of those personality characteristics that I have proposed as protective for women, or a relative lack of such characteristics might predispose women to those career choices.

Both medicine and psychology tend to be inherently isolative. The long training, private practice format, and long hours of professional activity in caring for others leave little time for meaningful socializing. Men do not seem to find this either unusual or problematic, but it might represent a significant lack of psychologically important nurturing to women. At the same time, both physicians and psychologists are called upon to nurture, regardless of their personal needs. Seiden and Gleiser[72] considered that a high proportion of a retrospective sample of women chemists who committed suicide had been isolated professionally. Their measures of isolation were numerical (fewer women than men in the work site) and religiocultural (25% of the women who committed suicide were categorized as Jewish, most of them in academic careers).

A study of death certificates of registered nurses in a single state showed those women to have committed suicide at 1½ times the rate of female workers in general and that of "professional workers" (not further defined) as well.[73] This author cites concordant findings by the Registrar General of the United Kingdom. Women in other professions, notably teaching, have not yet received such scrutiny. However, Blachly et al.,[74] in a too-small sample, found no difference from expectation in either teaching or nursing. Employment, in and of itself is not the critical factor. The proportion of women working outside of the home has grown steadily over the last 40 years,[75] yet, there is no correlation between the suicide rate of women and their growing participation in the work force.[76,77]

All of the professions shown to be associated with increased risk of suicide for women can be considered action-oriented. That orientation, as proposed by Nolen-Hoeksema,[53] might help explain the parity in suicide between the sexes.

The greatest mystery concerning suicide is not why so many do it, but why so few do. Given the amount of misery in the world and the ubiquity of personal crises and disasters, it is sometimes difficult to understand. Clearly, there must be protective factors that apply to the entire human race, or the species would not have survived. To breach that innate protection requires, in 90% to 95% of instances, the presence of a well-established psychiatric illness—most commonly major depression and/or substance abuse disorder. That is true not only throughout the western world, but also in the Orient.[3] Yet less than four percent of depressives,[78] and a similar proportion of substance abusers,[79] take their own lives. Women are much better protected than men, less so in the Far East than in the West.[3]

IMPLICATIONS FOR SUICIDE PREVENTION

Suicide is rare in the absence of recognizable psychiatric illness, so diagnosis is the first consideration. A history of parasuicides indicates a further risk. After that, differences between the sexes bring different factors into play.

It is safe to assume that there will be no major change in human nature in the foreseeable future. Men, as a group, will not become more communicative or less isolative in dealing with their problems. Women will continue to communicate, and derive strength from their social networks. Knowledge of these facts of life can help in assessing risk of suicide.

Knowing that men are reluctant to reveal their feelings of despair and their thoughts of suicide, the psychiatrist or other caretaker, when alerted by a high-risk diagnosis, will seek independent information from the patient's spouse or significant other. It is not uncommon for men seriously contemplating suicide to forbid such contact. The therapist's firm assertion of his/her intention to make the contact will meet with less resistance than will a meek request for permission. If the patient is adamant, risk of suicide should be upgraded and hospital admission considered. At that point, communication with the spouse becomes inescapable. One

should evaluate the quality of the patient's social support, primarily the sense of belonging. Does the man express a feeling of responsibility for significant others? Is he beholden to others or does he regard suicide as his inalienable right? Keeping in mind the independent way in which most men function will help in evaluating risk of suicide.

For women, major bulwarks against suicide are relatedness and responsibility. Evaluate the patient's support system. Who are the most important people in her current life, and how much do they interact? A diminished or nonexistent social network signals loss of protection. If suicidal thoughts are acknowledged, who would be hurt if she killed herself? How important is that? Is hurting others acceptable? If the woman's pain is overriding, risk is high. Finally, vigorous treatment of the underlying psychiatric disorder is the best preventive measure. Few actual suicides have received appropriate care.[40,41,80-82]

In this report, I have outlined what I believe to be some sex-specific protective factors. It goes without saying that they need testing, refining, and expanding. There are recent substantial data bases of retrospectively reconstructed suicides that may confirm, deny, or expand on what I have offered here. Our knowledge of risk factors is now well developed and it is hoped that further studies may more specifically test for the details of what is protective.

REFERENCES

1. Robins E, Murphy GE, Wilkinson RH, Gassner S, Kayes J. Some clinical considerations in the prevention of suicide based on a study of 134 successful suicides. Am J Public Health 1959;49:888-899.
2. Rich CL, Young D, Fowler RC. San Diego suicide study. I. Young versus old subjects. Arch Gen Psychiatry 1986;43:577-582.
3. Cheng ATA. Mental illness and suicide. A case-control study in Taiwan. Arch Gen Psychiatry 1995;52:594-603.
4. Rich CL, Fowler RC, Fogarty LA, Young D. San Diego suicide study, III. Relationships between diagnoses and stressors. Arch Gen Psychiatry 1988;45:589-592.
5. Murphy GE, Wetzel RD, Robins E, McEvoy L. Multiple risk factors predict suicide in alcoholism. Arch Gen Psychiatry 1992;49:459-463.
6. Weissman MM, Bruce ML, Leaf PJ, Florio LP, Holzer C III. Affective Disorders. In: Robins LN, Regier DA (eds): Psychiatric Disorders in America. New York, NY: Free Press, 1991.
7. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and twelve month prevalence of DSM-III-R psychiatric disorders in the United States: Results from a national comorbidity survey. Arch Gen Psychiatry 1994;51:8-19.
8. Canetto SS, Lester D. Gender and the primary prevention of suicide mortality. Suicide Life Threat Behav 1995;25:58-69.
9. Weissman MM. The epidemiology of suicide attempts, 1960 to 1971. Arch Gen Psychiatry 1974;30:737-746.
10. Kreitman N, Philip AE, Greer S, Bagley CR. Parasuicide. Br J Psychiatry 1969;115:746-747.
11. Morris JB, Kovacs M, Beck AT, Wolffe A. Notes toward an epidemiology of urban suicide. Compr Psychiatry 1974;15(6):537-547.
12. Parkin D, Stengel E. Incidence of suicidal attempts in an urban community. Br Med J 1965;2:133-138.
13. Wilson M. Suicidal behavior: Toward an explanation of differences in female and male rates. Suic Life Threat Behav 1981;11:131-140.
14. Clendenin WW, Murphy GE. Wrist cutting. New epidemiological findings. Arch Gen Psychiatry 1971;25:465-569.
15. Stengel E. Enquiries into attempted suicide. Proc R Soc Med 1952;45:613-620.
16. Kessel N. Self-poisoning, Part I. Br Med J 1965;2:1265-1270.
17. Nordentoft M, Rubin P. Mental illness and social integration among suicide attempters in Copenhagen. Acta Psychiatr Scand 1993;88:278-285.
18. Edwards JE, Whitlock FG. Suicide and attempted suicide in Brisbane, I and II. Med J Austr 1968;1:932-938, I; 989-995, II.
19. Kessel N. Self-poisoning, Part II. Br Med J 1965;2:1336-1340.
20. Dahlgren KG. Attempted suicide—35 years afterward. Suicide Life Threat Behav 1977;7:75-79.
21. Robins E, Gassner S, Kays J, Wilkinson RH, Murphy GE. The communication of suicidal intent: A study of 134 consecutive cases of successful (completed) suicide. Am J Psychiatry 1959;115:724-733.
22. Murphy GE. Suicide in Alcoholism. New York, NY: Oxford University Press, 1992.
23. Vital Statistics of the United States. Vol. II, Part A, Section 1. Calculated from Tables 1-9. Washington, DC: US Department Health and Human Services, 1992;36-37.
24. U.S. Injury Mortality Statistics, http://www.cdc.gov/ncipc/osp/usmort.htn.
25. Walsh B, Walsh D, Whelan B. Suicide in Dublin: II. The influence of some social and medical factors on coroners' verdicts. Br J Psychiatry 1975;126:309-312.
26. Barraclough BM. The different incidence of suicide in Eire and in England and in Wales. Br J Psychiatry 1978;132:36-38.
27. Kleck G. Miscounting suicides. Suicide Life Threat Behav 1988;18:219-236.
28. O'Carroll PW. A consideration of the validity and reliability of suicide mortality data. Suicide Life Threat Behav 1989;19:1-16.
29. Jarvis GK, Boldt M, Butt J. Medical examiners and manner of death. Suicide Life Threat Behav 1991;21:115-133.
30. Durkheim E. Suicide: A Study in Sociology. G. Simpson (ed): Glencoe, IL: Free Press, 1951.

31. Schneider PB. LaTentative de suicide, Paris, France: Delachaux et Niestle, 1954.

32. Neuringer C. Suicidal behavior in women, Crisis 1983;3: 41-49.

33. Lester D. Why People Kill Themselves, Springfield, IL: Thomas, 1972.

34. Sainsbury P. Suicide in women and adolescents. J Med Womens Fed 1964;46:149-158.

35. Stengel E. Suicide and Attempted Suicide, Baltimore, MD: Penguin, 1964.

36. Gilligan C. In a Different Voice. Psychological Theory and Women's Development. Cambridge, MA: Harvard University Press, 1982.

37. Kaplan AG, Klein RB. Women and Suicide. In Jacobs D, Brown HN (ed): Suicide. Understanding and Responding, Madison, CT: International Universities Press, 1989;257-282.

38. Canetto SS. Gender and suicide in the elderly. Suicide Life Threat Behav 1992;22:80-97.

39. Robins LN, Helzer JE, Przybeck TR, Regier DA. Alcohol Disorders in the Community: A Report from the Epidemiologic Catchment Area. In: Rose RM, Barrett J (eds): Alcoholism: Origins and Outcome, New York, NY: Raven, 1988;15-29.

40. Barraclough B, Bunch J, Nelson B, Sainsbury P. A hundred cases of suicide: Clinical aspects. Br J Psychiatry 1974;125:355-373.

41. Beskow J. Suicide and mental disorder in Swedish men. Acta Psychiatr Scand 1979;277(Suppl):1-138.

42. Rich CL, Ricketts JE, Fowler RC, Young D. Some differences between men and women who commit suicide. Am J Psychiatry 1988;145:718-722.

43. Arató M, Demeter E, Rihmer Z, Somogyi E. Retrospective psychiatric assessment of 200 suicides in Budapest. Acta Psychiatr Scand 1988;77:454-456.

44. Åsgård U. A psychiatric study of suicide among urban Swedish women. Acta Psychiatr Scand 1990;82:115-124.

45. Henriksson MM, Aro HM, Marttunen MJ, Heikkinen ME, Isometsaa ET, Kuoppasalmi KI, et al. Mental disorders and comorbidity in suicide. Am J Psychiatry 1993;150:935-940.

46. Lesage AD, Boyer R, Grunberg F, Vanier C, Morissette R, Ménard-Bateau C, et al. Suicide and mental disorders: A case-control study of young men. Am J Psychiatry 1994;151: 1063-1068.

47. Wolfersdorf M. Depression and suicidal behavior: Psychopathological differences between suicidal and non-suicidal depressive patients. Arch Suicide Res 1995;1:273-288.

48. Vassilas CA, Morgan HG. Suicide in Avon. Life stress, alcohol misuse and use of services. Br J Psychiatry 1997;170:453-455.

49. Linehan MM. Suicide and attempted suicide: Study of perceived sex differences. Percept Motor Skills 1973;37:31-34.

50. Deluty RH. Factors affecting the acceptability of suicide. Omega 1988-89;19:315-326.

51. White H, Stillion JM. Sex differences in attitudes toward suicide: Do males stigmatize males? Psychol Women Q 1988;12: 357-366.

52. Gore JC. Functional MRI studies of language by sex. Am J Psychiatry 1996;153:860.

53. Nolen-Hoeksema S. Sex differences in unipolar depression: Evidence and theory. Psychol Bull 1987;101:259-282.

54. Tannen D. You Just Don't Understand. Women and Men in Conversation. New York, NY: Ballantine, 1990.

55. Suter B. Suicide and Women. In Wolman BJ, Krauss HH (eds): Between Survival and Suicide. New York, NY: Gardner, 1976;129-161.

56. Gove WR. Sex, marital status and suicide. J Health Hum Behavior 1972;13:204-213.

57. Hatch LR. Research on men's and women's retirement attitudes. Implications for retirement policy. In E.F. Borgatta & R.J.V. Montgomery (ed): Critical Issues in Ageing Policy, Newbury Park, NJ: Sage, 1987;129-160.

58. Hess BB. Gender and ageing: The demographic parameters. Generations. J West Gerontol Soc 1990;14:12-16.

59. Carney SS, Rich CL, Burke PA, Fowler RC. Suicide over 60: The San Diego study. J Am Geriatr Soc 1994;42:174-180.

60. Verbrugge LM. The twain meet: Empirical explanations of sex differences in health and mortality. In Ory MG, Warner HR (ed): Gender Health and Longevity, New York, NY: Springer, 1990;159-199.

61. Regier DA, Boyd JH, Burke JD Jr, Rae DS, Myers JK, Kramer M, Robins LN, et al. One-month prevalence of mental disorders in the United States based on five epidemiologic catchment area sites. Arch Gen Psychiatry 1988;45:977-986.

62. Nisbet PA. Protective factors for suicidal black females. Suicide Life Threat Behav 1996;26:325-341.

63. Barnow S, Linden M. Suicidality and tiredness of life among very old persons: Results from the Berlin Ageing Study (B.A.S.E.). Arch Suicide Res 1997;3:171-182.

64. Robins E. The Final Months. A Study of the Lives of 134 Persons Who Committed Suicide. New York, NY: Oxford University Press, 1981;437.

65. Murphy GE, Armstrong JW, Hermele SL, Fischer JR, Clendenin WW. Suicide and alcoholism. Interpersonal loss confirmed as a predictor. Arch Gen Psychiatry 1979;36:65-69.

66. Murphy GE, Robins E. Social factors in suicide. JAMA 1967;199:303-308.

67. Steppacher RC, Mausner JS. Suicide in male and female physicians. JAMA 1974;228:323-328.

68. Pitts FN, Schuller AB, Rich CL, Pitts AF. Suicide among U.S. women physicians, 1967-1972. Am J Psychiatry 1979; 136:694-696.

69. Li FP. Suicide among chemists. Arch Environ Health 1969;19:518-520.

70. Walrath J, Li FP, Hoar SK, Mead MW, Fraumeni JF. Causes of death among female chemists. Am J Public Health 1985;75:883-884.

71. Mausner JS, Steppacher RC. Suicide in professionals: A study of male and female psychologists. Am J Epidemiol 1973;98:436-445.

72. Seiden RH, Gleiser M. Sex differences in suicide among chemists. Omega 1990;21:177-189.

73. Katz RM. Causes of death among registered nurses. J Occup Med 1983;25:760-762.

74. Blachly PH, Osterud HT, Josslin R. Suicide in professional groups. N Engl J Med 1963;268:1278-1282.

75. Newman JP, Whittemore KR, Newman HG. Women in the labor force and suicide. Social Prob 1973;21:220-230.

76. Stack S. The effect of female participation in the labor force on suicide. A time series analysis, 1948-1980. Sociol Forum 1987;21:257-287.

77. Trovato F, Vos R. Married female labor force participation and suicide in Canada, 1971 & 1981. Sociol Forum 1992;7:661-677.

78. Blair-West GW, Mellsop GW, Eyeson-Annan ML. Down-rating lifetime suicide risk in major depression. Acta Psychiatr Scand 1997;95:259-263.

79. Murphy GE, Wetzel RD. The lifetime risk of suicide in alcoholism. Arch Gen Psychiatry 1990;47:383-392.

80. Isacsson G, Boëthius G, Bergman U. Low level of antidepressant prescription for people who later commit suicide: 15 years of experience from a population-based drug database in Sweden. Acta Psychiatr Scand 1992;85:444-448.

81. Isometsaa ET, Henriksson MM, Aro HM, Heikkinen ME, Kuoppasalmi KI, Lönnqvist JK. Suicide in major depression. Am J Psychiatry 1994;15:530-536.

82. Murphy GE. The physician's responsibility for suicide. II. Errors of omission. Ann Internal Med 1975;82:305-309.