Loneliness

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Discrepancy Model A conceptual model positing that loneliness occurs when there is a significant mismatch or discrepancy between a person's actual social relations and his or her needed or desired social relations.

Emotional Loneliness The type of loneliness that occurs when a person lacks an intimate attachment figure, such as might be provided for children by their parents or for adults by a spouse or intimate friend.

Loneliness The subjective psychological discomfort people experience when their network of social relationships is significantly deficient in either quality or quantity.

Social Isolation The objective situation of being alone or lacking social relationships. **Social Loneliness** The type of loneliness that occurs when a person lacks the sense of social integration or community involvement that might be provided by a network of friends, neighbors, or co-workers.

LONELINESS is the unpleasant experience that occurs when a person's network of social relationships is significantly deficient in quantity or quality. This article examines loneliness and its implications for mental health. It begins with a brief historical perspective on loneliness and then provides a conceptual model for understanding loneliness and the phenomena associated with it. Subsequent sections discuss the nature and types of loneliness, examine the life cycle development and demographics of loneliness, review the mental and physical health correlates of loneliness, and discuss coping strategies and professional interventions for overcoming loneliness.

I. HISTORICAL PERSPECTIVES ON LONELINESS

One may think of loneliness as a modern condition, born of urbanization and technology, and further intensified by postmodern trends. Yet, the desire for companionship (or cooperation) versus the fear of social rejection (or hostility) undoubtedly operated in prehistoric times. Themes of aloneness can be found in Greek mythology and drama. For instance, Jung and others have interpreted Prometheus's stealing fire from the Gods as symbolic of his raising himself above and thereby alienating himself from his fellow humans. Although the *Odyssey* focuses on Homer's geographical wanderings, this tale implies that he was socially adrift as well. In their analytic writings, Greek philosophers had similar concerns: Aristotle saw humans as social animals, needing friendship. In the seventeenth century, Hobbes characterized human life not only as "nasty, brutish, and short" but also as "solitary." Since then philosophers such as Descartes, Nietzsche, and Sartre have written extensively on social isolation and solitude.

Social science examination of loneliness dates back at least as far as T. L. Stoddard's 1932 volume entitled

Lonely America. In 1938, Gregory Zilboorgpublished an article linking loneliness, which he saw as stemming from early childhood experiences, with three personality attributes: narcissism, megalomania, and hostility. In the 15-year period after World War II, there was a small trickle of publications on loneliness, mostly by clinical psychologists who gained insights into loneliness from their observations of clients. Probably the best known of these authors were Frieda Fromm-Reichmann and Harry Stack Sullivan. Fromm-Reichmann believed that real loneliness plays a role in the genesis of mental disorders including psychosis and schizophrenia. She contended that loneliness is such a frightening experience that people in its grip cannot discuss it and will do almost anything to avoid it. Harry Stack Sullivan saw loneliness as an exceedingly unpleasant experience arising when humans are unable to satisfy their need for intimacy.

Available bibliographies list only a dozen or so psychologically oriented, English language publications on loneliness prior to 1960. Another 64 articles and books appeared in the 1960s. In that decade, empirical research on topics such as loneliness among older adults became more prominent, and systematic efforts to measure individual differences in loneliness began. Moustakas published his popular book, *Loneliness,* on existential loneliness. A widely read sociological analysis, *The Lonely Crowd,* by David Riesman and colleagues, focused attention on the societal underpinnings of loneliness, a paradoxical emphasis on being a team player and yet simultaneously distinguishing oneself individually.

Approximately 170 publications on loneliness appeared in the 1970s, and nearly 650 more between 1980 and June 1996. Thus, there has been a noticeable increase in the rate of publication on loneliness. The early 1970s mark what might be called the beginning of the contemporary era for loneliness research,

the era that will be covered in this article. In 1973, Robert Weiss published his influential book, *Loneliness: The Experience of Emotional and Social Isolation.* Since then, there have been other noteworthy edited volumes and reviews. The knowledge gained during this quarter century of research and theory development is summarized here.

II. A MODEL FOR UNDERSTANDING LONELINESS

Before reviewing empirical findings, it is helpful to have a general framework for conceptualizing loneliness. Although the experience of loneliness is different for each individual, common elements in loneliness can be identified. Figure 1 presents a model for undererstanding loneliness and the phenomena associated with it. Central to this discrepancy model is the idea that loneliness occurs when there is a significant mismatch between a person's actual social relationships and his or her needed or desired social relations. A man who longs to be married but who is still single will feel lonely. Loneliness theorists differ in how they conceptualize the nature of this discrepancy. Some theorists posit basic human social needs and believe that loneliness occurs when these enduring needs are not met. This approach is called the social needs perspective on loneliness. Other theorists take a more cognitive perspective, emphasizing the match between a person's desires or expectations for relationships and the reality of his or her social life. This is known as the cognitive discrepancy model of loneliness.

The model in Fig. 1 also includes the more distal antecedents of loneliness, distinguishing between predisposing factors that make people vulnerable to loneliness and precipitating events that trigger the onset of loneliness. Diverse predisposing factors can increase a
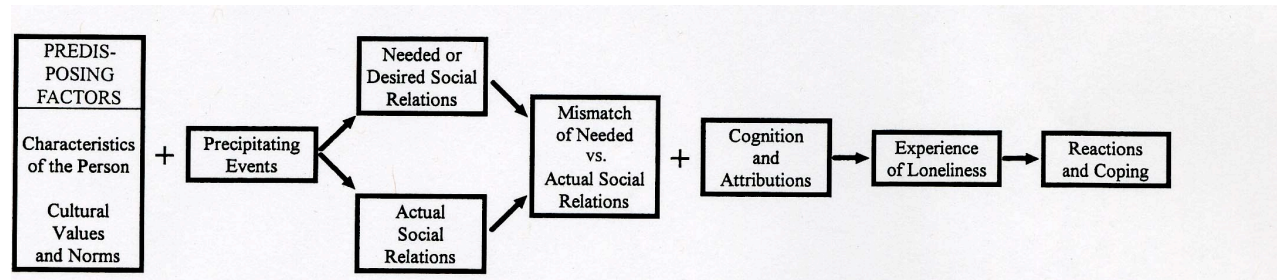

Figure 1 A model of the experience of loneliness.

person's risk of loneliness. Individual differences in personality and behavior such as extreme shyness or the lack of social skills may interfere with creating or maintaining satisfying social relationships and thereby set the stage for loneliness. Cultural values and norms can also affect a person's vulnerability to loneliness. American culture has been characterized as being highly individualistic; our values encourage personal independence and the pursuit of individual goals even at the expense of social ties. In contrast, other cultures in Asia, Africa, and Latin America are more collectivistic; their values encourage loyalty to family, adherence to group norms, and the preservation of harmony in social relations with members of one's own group. Although research on this point is needed, it seems likely that cultural differences in values such as individualism and collectivism affect the experience of loneliness. Within a society, social norms may also affect the tendency to feel lonely. For instance, American high school students report more intense feelings of loneliness if they are alone on a weekend evening (which teen culture defines as a time for socializing) than if they are alone on a school night during the week. *[See* SHYNESS.]

The person's immediate social situation can also affect loneliness. Situations vary in the opportunities they provide for social contact. Some situational factors are very basic, e.g., time, distance, and money. The hardworking medical student may have little time for sleep, let alone making friends. The traveling salesman who spends most days on the road may find it hard to find a spouse. The stress of unemployment may strain marital satisfaction and increase conflict. Situational constraints can also limit the pool of available partners. For example, because women live considerably longer than men, older widowed women have fewer prospects for remarriage and are significantly less likely to remarry than are older widowed men. When situational factors persist over time, they can increase the risk of loneliness.

The onset of loneliness is often initiated by a precipitating event, usually a change in a person's actual or desired/needed social relationships. Examples include the loss of an important relationship through death or divorce or the disruption of social relations created by moving to a new school, town, or job. Figure 1 also shows that how a person perceives and thinks about his or her life situation—cognitive processes such as social comparison and causal attribution—affects the expe-

rience of loneliness. The intensity of loneliness may be increased if people evaluate their own situation as worse than that of their peers, or if they attribute the causes of their loneliness to personal inadequacies. Finally, Fig. 1 calls attention to differences in the ways that people react to being lonely.

This model is not a specific theory of loneliness but rather a general framework that highlights important elements of the loneliness experience. The components of this model could be analyzed from diverse theoretical perspectives. The next sections of this article review empirical evidence relevant to various aspects of loneliness.

III. NATURE, TYPES, AND MEASUREMENT OF LONELINESS

Several different definitions of loneliness have been given. Often, these definitions reflect a particular theoretical approach to loneliness. For example, behavioral theorists emphasize loneliness as a response to an absence of social reinforcement, cognitive theorists emphasize the perception of a discrepancy between desired and achieved social contacts, and psychodynamically oriented theorists such as Weiss and Sullivan focus on the lack of need fulfillment. Although definitions of loneliness vary, most assume that loneliness results from social deficiencies, that loneliness is a subjective phenomenon not synonymous with objective social isolation, and that it is aversive.

A. The Nature of Loneliness

When laypeople are asked what characteristics they associate with a person being lonely, their answers can be grouped into three clusters. The dominant cluster includes the thoughts and feelings directly related to the experience of loneliness: feeling different, excluded, isolated, unloved, and inferior. Laypersons also have a cluster of images about why individuals experience loneliness: being reserved and avoiding social contacts, working too hard, and being introspective. Finally, observers also see the lonely person as having other negative feelings: paranoia, anger, and depression. Complementing how others see lonely people, lonely individuals themselves report such feelings as sadness, a sense of estrangement and rejection by others, a lack of self-confidence, boredom, anger against others, and depression.

B. Types of Loneliness

Although they have searched for universal facets of loneliness, researchers have also tried to identify different types of loneliness. One typology uses the duration of loneliness to classify people as experiencing short-lived or state loneliness versus long-lived or trait loneliness. Trait and state loneliness differ in several important ways other than chronicity. A first difference is that *trait loneliness* has cross-situational generality; *state loneliness* is more situation-specific. Available evidence also suggests that trait-lonely individuals, compared with state-lonely people, are more likely to have deficient social skills, to attribute their loneliness to undesirable, unchangeable aspects of their personality, and to have difficulty overcoming their social deficits.

A second typology of loneliness was suggested by Weiss (1973), based on his analysis of what relationships provide. He distinguished between emotional and social loneliness. *Emotional loneliness* stems from the absence of emotional attachments provided by intimate relationships. Bereavement, divorce, or empty-shell marriages are likely antecedents of this form of loneliness. *Social loneliness* stems from the absence of an adequate social network. Moving, loss of a job, being excluded by peers, and not belonging to community organizations are likely antecedents of this form of loneliness. The symptoms of emotional loneliness include anxiety, a sense of utter aloneness, vigilance to threat, and a tendency to misinterpret the hostile or affectionate intention of others. The symptoms of social isolation are feelings of boredom, restlessness, and marginality. The affective sequelae of emotional loneliness are generally more intense and unpleasant than the sequelae of social loneliness. A recent study of Israeli university students suggests that it may be possible to divide emotionally lonely individuals into two subgroups—those of the "paranoid" type with angry feelings who believe they are the targets of others' hostility and those who feel depressed. *[See* BEREAVEMENT.]

C. Measures of Loneliness

Beyond describing phenomena and delineating sub-types, social scientists are eager to operationalize constructs. In 1978, Daniel Russell and his associates published the University of California, Los Angeles (UCLA) Loneliness Scale. This 20-item paper-and-pencil measure helped to spur an increase in loneliness research. Since then, psychometric work has moved steadily forward. These advances include revision of the UCLA scale to simplify the wording and to balance the response pattern so that agreeing with some items and disagreeing with others reflects loneliness; demonstration of the UCLA scale's discriminant validity vis-a-vis constructs such as depression, social desirability, self-esteem, and anxiety; translation of the UCLA scale into several different languages (e.g., French, German, Greek, Japanese, Persian, Portuguese, Russian, Spanish); the development of other scales besides the UCLA measure; the development of scales for measuring trait versus state loneliness and for social versus emotional loneliness; and the construction of scales for children. At least a dozen studies have examined the factorial structure of the revised UCLA Loneliness Scale. Often, two or three factors are statistically identified, although some investigators find just one factor and others believe that underlying the multiple factors there is a single main or higher-order factor. In any case, the Cronbach alpha of the UCLA Loneliness Scale is high, therefore research-oriented use of overall loneliness scores is justified.

IV. DEVELOPMENT AND DEMOGRAPHICS OF LONELINESS

A. Emergence of Loneliness in Childhood

The exact age at which children begin experiencing loneliness is open to debate. Some have argued that loneliness emerges in early childhood, even as early as the first 3 months of life. Attachment research demonstrates that within roughly the first 6 months, infants form specific attachment bonds arid shortly thereafter develop separation anxieties; by 10 months, children resist being separated from caregivers. Others, however, have argued that loneliness does not emerge until children are older. Harry Stack Sullivan believed that children need to be able to form intimate chumships before the absence of such bonds can trigger loneliness. According to his analysis, this stage is not reached until the preadolescent period. *[See* ATTACHMENT.]

In trying to resolve this controversy, some authorities claim that infants experience separation anxiety but that this is different from loneliness per se. Weiss's

analysis is compatible with this view; he believes that loneliness has more ramifications than separation anxiety. Two pieces of evidence, however, are consistent with the position that loneliness exists well before preadolescence. First, symptoms of social (as opposed to emotional) loneliness (e.g., malaise, boredom, and alienation) have been observed in preschool children of age 3. Second, psychometric analyses of data from children as young as 5 show that these children can reliably and validly complete loneliness measures. If they were not already experiencing loneliness, it seems unlikely that their answers would form meaningful patterns.

Whenever loneliness begins, it appears to have roots in experiences in the family. A Manitoba study of 130 female undergraduates and their parents demonstrated that daughters' loneliness scores were modestly correlated with both their mothers' $(r = .25)$ and their fathers' $(r = .19)$ loneliness scores. This association could be due to either genetic or social factors. A number of studies have shown that lonely individuals have (or at least report that they have) cold, less nurturant parents. For instance, in one large-scale study, lonely adults were more likely than nonlonely adults to remember their parents as having been remote, untrustworthy, and disagreeable. In another study on adolescence, greater loneliness was associated with participants feeling that their parents had done little to encourage them to strive for popularity and had been dissatisfied with their choice of friends.

B. Prevalence of Loneliness in Adulthood

In a representative sampling of U.S. citizens, 26% said that they had felt "very lonely or remote from other people" in the past few weeks. Naturally, the results vary as a function of the exact wording of the question posed to respondents. When asked whether they have ever been lonely in their lives, more people answer affirmatively. When asked whether they see themselves as a "lonely person," fewer respond affirmatively. During adulthood, loneliness also varies as a function of several demographic variables and life experiences.

C. Nationality Differences

Sociological explanations of loneliness emphasize that societal-level variables contribute to loneliness. Thus, one would expect nationality differences in loneliness.

Data from the World Values Survey on how often people feel lonely support this expectation. Among adults in 18 countries interviewed in the early 1980s, Italians and Japanese respondents reported the most frequent feelings of loneliness; Danish and Dutch respondents reported the least frequent feelings of loneliness. Consistent with the analysis of American culture by Riesman and others, respondents from the United States ranked high (fourth) in the extent of their loneliness. Within the United States, a large National Institute of Mental Health (NIMH) study of two communities (Kansas City, Missouri, and Washington County, Maryland) found that African Americans were more apt to report loneliness than white Americans.

D. Socioeconomic Factors

Several studies have shown that loneliness is more prevalent among lower-income groups. For instance, in a survey of 8634 households in a large, predominantly urban Southwestern U.S. county, members of families with incomes under $10,000 (in 1986) were 4.6 times more likely to report loneliness than members of families with incomes of $75,000 or more. In that study, education also showed an inverse relationship to loneliness.

One might expect that in most societies unemployment is associated with loneliness. One small-scale project studied Oklahomans' use of the services of their state unemployment center., It showed that participants who had been unemployed longer and who were ineligible (or no longer eligible) for unemployment benefits were more lonely than those who had been unemployed for a shorter period and who had benefits. More extensive testing is needed of the relationship between unemployment and loneliness. *[See* SOCIOECONOMIC STATUS.]

E. Gender Differences

An early meta-analysis found that gender differences in loneliness are measure-specific. When scores on the UCLA Loneliness Scale were analyzed, typically no difference in the scores of men and women was found. In the few studies (3 of 28) where differences were obtained, men tended to have higher UCLA loneliness scores than women. This scale does not directly ask respondents if they are lonely. In contrast, when respond-

ents have been directly asked if they are lonely, women generally reported more loneliness than men. Thus a gender difference occurs when people are asked to identify or label themselves as lonely but not when other, less direct questions are posed.

More recent findings seem consistent with these patterns. For instance, in two representative surveys of residents of Edmonton, Alberta, men showed a nonsignificant trend toward greater loneliness on a short form of the UCLA scale. In the development of the third version of the UCLA scale, gender differences were found in only one of four samples. Again, when gender differences did emerge in UCLA scores, men were more lonely than women. Turning to studies which explicitly asked about feelings of "loneliness," analyses of the data from 18 countries participating in the World Value Survey provide global results. In all 18 countries, women more frequently than men acknowledged feeling lonely.

There are several possible explanations for sex differences in self-labeled loneliness. One possibility that has gained attention and support in the literature is that it is more socially acceptable for women to express their difficulties than it is for men. According to this view, the negative consequences of admitting loneliness are less for women than for men. This possibility has been tested by having university students read a standard description of a lonely person. When the lonely person was identified as a woman rather than a man, participants rated the lonely person as better adjusted, more socially acceptable, and more effective in performing various roles. Thus, the stigma of loneliness appears greater for men than for women. An interesting prediction for future testing is that the stronger the traditional sex-role expectations in a society, the larger the gender difference in reluctance to acknowledge loneliness. *[See* GENDER DIFFERENCES IN MENTAL HEALTH.]

F. Health Status and Age

A Canadian survey examined the effects of health status on loneliness. The investigators obtained a representative sample of disabled adults (N = 731) from 10 counties in southwestern Ontario, and then obtained an equivalent sample of nondisabled subjects *(N = 850)* matched on age, sex, and area of residence. At all age levels, disabled respondents were more likely to report loneliness than were members of the matched sample.
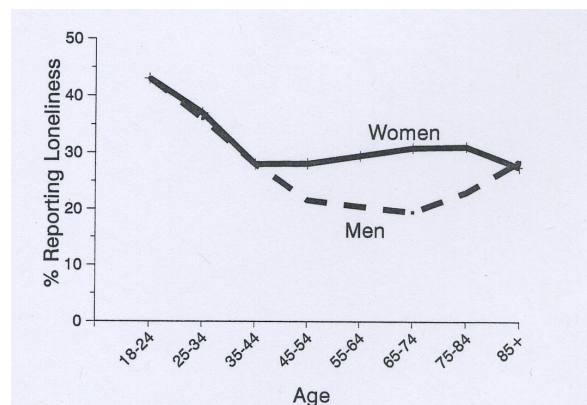

Figure 2 Age trends in loneliness.

The media often portray old age as a time of loneliness. Consistent with this view, 65% of younger adults aged 18 to 64 in a National Council on Aging survey said they thought loneliness was a "very serious problem for most people over 65." In contrast, only 45% of the older adults aged 65 or older in this study concurred in this belief.

To explore how loneliness actually varies over the life cycle, data sets of respondents under and over age 65 are needed. Figure 2 is based on an unweighted aggregation of male and female respondents *(N = 18,682)* from six surveys containing similar self-labeling questions about loneliness. The incidence of loneliness starts high, drops from young adulthood through middle age, and then seems to increase again slightly. In the data aggregated across gender, 43% of 18- to 24-year-olds reported loneliness. This dropped to 25% for respondents 45 to 64, and then rose again to 26%, 28 %, and 28% for individuals in the 65 to 74, 75 to 84, and 85+ age groups, respectively.

Three nuances of the association between age and loneliness are worth noting. First, the exact shape of the curve is influenced by gender, with sex differences being greater in midlife than in young adulthood or old age. From their 40s until their 80s, women reported more loneliness than men. Second, age accounts for only a small proportion of the variance in loneliness (e.g., as little as 1 %). Third, in other studies restricted to just older adults (aged 55+), findings on the association between age and loneliness vary, some studies showing marked increases, others showing none at all. The magnitude of any possible increase in loneliness among older adults may depend on the proportions

of widowed and incapacitated persons in older subgroups. Finally, with slight variations, the same basic age trend also emerged when other measures of loneliness were used.

How can age trends in loneliness be explained? One approach is to consider why loneliness might be high or low in specific stages of the life cycle. For instance, some authors have claimed that separation from parents, the challenges associated with forming a personal identity, and other social transitions all contribute to the likelihood of adolescents becoming lonely. To explain the modest upturn in loneliness at the opposite end of the life cycle, others have argued that a decline in the social ties of the elderly makes them susceptible to loneliness. Research provides evidence that older adults do indeed have smaller social networks and do spend less time with others than do either adolescent or middle-aged Americans. On the other hand, a general decline in the experiencing of emotions (including loneliness) may diminish the loneliness that older adults would otherwise feel. The presence of two such countervailing forces may be useful in understanding why the changes in later life are modest. [*See* AGING AND MENTAL HEALTH; SOCIAL NETWORKS.]

According to the cognitive discrepancy perspective described earlier, loneliness results when there is a discrepancy between people's desired and achieved levels of contact. Many factors may alter desired or achieved levels of contact, but it is the gap between these parameters that is identified as the immediate antecedent of loneliness. If the syllogism "being old = being alone = being lonely" is faulty, this cognitive model suggests it may be because older adults have lowered desired levels of social ties. Research demonstrates that throughout the life cycle, the desired-achieved gap is a good predictor of loneliness. Whatever explanation one endorses, the idea that the retirement years are typically fraught with loneliness appears to be more myth than reality.

G. Correlates of Loneliness across the Life Cycle

These possible explanations of age changes in loneliness are related to another similar question: Are the predictors of loneliness the same across the life cycle or do they change? The answer appears to be that both views are correct. Several variables (e.g., personality factors such as self-esteem, people feeling that their re-

lationships are not as good as those enjoyed by their friends) are associated with loneliness throughout the life cycle. Similarly, the quality of people's relationships is generally a better predictor of loneliness than the number of social ties they have. In the interpersonal domain, however, age-specific correlations have been found. For instance, as children go from preadolescence to late adolescence to young adulthood, there is a shift in the type of relationship that is most closely linked with loneliness. In the middle elementary years, it is the quality of children's relationships with their mothers. In late adolescence, for example, it is the quality of college students' relationships with their peers. In early adulthood, romantic relationships become crucial. In midlife, family relations, especially marital relationships, predict loneliness. Among the elderly, friends and neighbors assume considerable importance.

H. Marital Status

Data from respondents in more than 20 nations document that loneliness is less common among married than nonmarried individuals. This finding is so consistent that it has been called a sociological law. Furthermore, in one study comparing the strength of association between eight common demographic factors and loneliness, marital status was the strongest predictor. When the unmarried are categorized as never married versus divorced or widowed, the results vary somewhat by study. The general tendency appears to be for never-married people to be less lonely than the divorced or widowed.

In addition to these group differences, loneliness is also part of the process of ending relationships. When young adult romantic relationships end, both partners experience the loss of their bond. Yet the person who is left behind is more likely to experience loneliness than the person who initiates the breakup. This finding can be interpreted from a discrepancy model perspective as the result of a sense of control over the breakup tempering the psychological impact of loss.

The role of loneliness in the experience of divorce is illustrated by a study of 74 recently divorced men and women from Oklahoma. Individuals who were more lonely at the time of data collection (1 week to 3 years postdivorce), as compared with those who were less lonely, blamed more of their marriages' problems on their former spouses. They also reported that they had more difficulties in their relationships with their ex-

partners (e.g., arguments over child rearing), drank more, experienced greater depression, felt more cut-off from their friends, and were less likely to become romantically involved with a new partner. In essence, people who are lonely appear to experience more difficulties in the process of separation. Similar findings have been obtained for widows in the period leading up to and after the loss of their spouses.

Although marital status is important, one should not be lulled into believing that it is a steadfast guarantee against loneliness. Within-group analyses demonstrate that some factors increase loneliness among married individuals and other factors decrease it among the nonmarried. Looking first at married individuals, those who are unhappy with their marriages and name another person besides their spouse as their closest relationship partner are vulnerable to loneliness. From the reverse vantage point, a recent Dutch study showed that older adults without partners can be relatively free of feelings of loneliness when they are well supported by friends, are more accepting of their single status, and see opportunities for changing their status if they wish.

In summary, loneliness emerges early in life. It is especially prevalent in late adolescence and early adulthood. Loneliness is affected by one's demographic characteristics. Some categories of people including the poor, the disabled, and the nonmarried are at greater risk for loneliness than others. Many psychological predictors of loneliness operate at all ages, but the strength of some interpersonal correlates of loneliness is age-related. Loneliness is interwoven with how people pass through life transitions. Social transitions such as divorce can create loneliness. At the same time, people who are especially lonely during such transitions may find them more stressful and difficult than do nonlonely individuals.

For anyone concerned with community programs and preventive mental health, people in high-risk categories for loneliness warrant special attention. For example, evidence that loneliness emerges in childhood and that marriage reduces the risk of loneliness suggests the importance of preventive and supportive interventions for families. For practitioners working with lonely individuals, interventions may be enhanced by attention to life cycle considerations such as parenting programs to benefit young children indirectly, marital enrichment programs for individuals at midlife, and the promotion of companionship among

the elderly. Finally, demographic findings suggest that loneliness is caused not only by psychological and interpersonal dynamics but also by larger social factors.

V. MENTAL AND PHYSICAL HEALTH

Transitory loneliness, such as the distress of being separated from loved ones or the difficulties of making friends after moving to a new town, are part of the routine fabric of human life in modern society. In contrast, when loneliness is severe and persists for a long time, it has more serious implications for psychological well-being. Two types of research have linked loneliness to psychological problems: self-report studies of nonclinic samples and clinical studies of individuals in treatment.

A. Self-Report Studies

A growing number of empirical studies have used paper-and-pencil self-report measures to assess loneliness, personality characteristics, and psychological problems in samples of adolescents and adults. Several patterns have been found. An association between loneliness and depression is well established. Lonely people often report feeling sad and depressed, and they score higher than the nonlonely on standardized measures of depression. Loneliness is also correlated with low self-esteem, social inhibition or shyness, and anxiety. In men, loneliness has been linked to hostility and to a greater potential to rape. Some studies have found an association between loneliness and neuroticism. Lonely people are more likely than the nonlonely to report extensive use of tobacco, alcohol, and illegal drugs. Among adolescents, loneliness has been associated with poor grades in school, running away from home, stealing, and vandalism. *[See* ANXIETY; DEPRESSION; SELF-ESTEEM.]

B. Clinical Studies

Beginning in the 1950s, therapists began to publish accounts linking loneliness to such psychological problems as schizophrenia and alcohol abuse. Since then, more systematic studies of clinical samples have been conducted. Elevated levels of loneliness have been found among people in counseling and psychotherapy, and also among patients in residential psychiatric fa-

cilities. Among Israeli soldiers, loneliness has been associated with mental breakdowns during or immediately after battle. Individuals who have attempted suicide and those in treatment for alcoholism also show greater loneliness. Research finds that prisoners and patients hospitalized for medical problems experience loneliness, perhaps as a result of being separated from their typical social networks. *[See* SCHIZO-PHRENIA.]

C. Causal Mechanisms

Although much is known about the correlates of loneliness, relatively little is known about the causal mechanisms producing these patterns of association. Consider the case of loneliness and alcoholism. One possibility is that loneliness leads to alcohol abuse. Some people may drink to drown their sorrows and to cope with chronic feelings of loneliness. A second possibility is that problem drinking leads to loneliness. Alcoholism may disrupt a person's social life, driving away friends and loved ones or leading to the loss of a job; these events may then result in loneliness. A third possibility is that some people experience many life problems such as unemployment, poor physical health, or inadequate social skills which simultaneously lead them to feel lonely and to abuse alcohol. It is likely that all of these possible causal pathways occur. More generally, the links between loneliness and psychological problems are probably reciprocal and interactive. *[See* ALCOHOL PROBLEMS.]

D. Physical Health

Loneliness is also associated with physical health problems. Compared with nonlonely peers, lonely people are more likely to report such symptoms as sleep disturbances, headaches, backaches, and poor appetite. In some cases, lonely people tend to worry more about their health and to visit physicians more frequently. In addition to these self-report findings, research has also linked loneliness to physicians' ratings of patients. There is some evidence that physicians perceive lonely people as lower in general health and less likely to comply with medical regimens than nonlonely patients.

There is also evidence linking loneliness to an increased risk of death. For example, a recent longitudinal population-based study of Finnish men over the age of 40 found that the risk of death from all causes was greater among men who rated their social relationships as inadequate and who were divorced or never married. During a 5-year period, men who rated their social relationships as inadequate (bottom quartile) were 1.83 times more likely to die than men who rated their social relationships positively (top quartile). More direct evidence linking loneliness (measured by a short form of the UCLA Loneliness Scale) and health comes from research on adults age 65 or older living in rural Iowa. Over a 2-year period, lonely people were significantly more likely to move to a nursing home and to die than were the nonlonely. This effect was found even when other risk factors, such as depression, were controlled. For example, the mortality rate was 4.5 per hundred among the least lonely, but 17.5 per hundred among the most lonely.

The mechanisms linking the subjective experience of loneliness to physical health outcomes are not well understood. Many factors may be involved. For instance, lonely people may take poorer care of their health or may cope with loneliness in health-compromising ways. Nonlonely people may benefit from friends and loved ones who offer advice and assistance. Several empirical studies suggest that physiological factors may also mediate the loneliness-health association. In these studies, researchers have assessed loneliness and immune functioning among diverse samples, including medical students, spouses of cancer patients, psychiatric patients, and men testing positive for HIV. For example, lonely medical school students have been shown to have poorer cellular-immune control of the latent Epstein-Barr virus and lower natural killer cell activity than nonlonely medical students. Although results have not been entirely consistent, most studies have found that lonely people show lower immunocompetency than nonlonely people. *[See* PSYCHONEUROIMMUNOLOGY.]

VI. OVERCOMING LONELINESS

During the journey from birth to death, few people escape the misery of loneliness. The problems leading to loneliness are varied; there is no single universal cause of loneliness. A recognition of this diversity is essential for understanding how people cope with loneliness and for designing effective interventions to assist the lonely. It is useful to distinguish problems concerning the initiation of new relationships, the maintenance of

satisfying relationships over time, and the dissolution of relationships.

A. Initiating Relationships

A central problem for many lonely people is how to establish new relationships—how to make friends, find a confidant, fall in love. For some people, the successful initiation of relationships is hampered by poor social skills, social anxiety, and shyness. Cognitive factors may also be important: individuals with low self-esteem, distorted perceptions of themselves, or unrealistic standards for eligible partners may have difficulties. Yet most people manage on their own to make friends and find partners. Parents, teachers, and other adults often try informally to help children learn social skills, and young people often give considerable thought to these issues as well. Clubs, sports teams, and social and religious organizations are often places to meet new people with common interests and values. Recently, advances in computer technology and the accessibility of the Internet have provided new opportunities for people to get acquainted electronically.

Several therapeutic interventions can assist people having problems initiating relationships. For example, social skills training programs have been designed for both children and adults. Such programs use a variety of techniques (e.g., modeling, role playing, self-observation) to improve communication skills and self-presentation. Shyness groups and assertion training groups have also been developed to help individuals overcome social inhibitions. Cognitive-behavioral therapies are helpful to people whose self-defeating thought patterns impede the formation of relationships. *[See* BEHAVIOR THERAPY; COGNITIVE THERAPY.]

It is also worth noting that cultural norms and values can affect the ease or difficulty of initiating relationships. In many parts of the world, for example, marriages arranged by parents ensure that young adults find partners. Americans have the freedom of personal choice, but also the dilemma of finding a compatible mate. Finally, situational factors such as a person's financial resources and work obligations can also affect the ability to initiate relationships. The firespotter who lives in a remote part of the forest has few opportunities to meet people. Overcoming this problem may require a change in jobs, rather than a change in social skills.

Loneliness can result not only from the absence of relationships, but also from having a restricted or impoverished network of social relations. Social needs theorists such as Robert Weiss believe that people need a network of social relationships, including ties to friends, a loved partner, and family. From this perspective, a happily married woman might feel lonely if she lacks close friends or has troubled relations with her co-workers. A growing body of research on loneliness, social support, and multiple roles demonstrates that people benefit from having a rich and diverse social network.

B. Maintaining Satisfying Relationships

As noted earlier, being married or having friends is no certain guarantee of avoiding loneliness. Although we tend to think of lonely people as lacking relationships, this is not always the case. Separation from friends and loved ones can create loneliness. Events such as going away to school, moving to a new town, serving in the military, or working away from home can cause loneliness. Some institutions, such as colleges, recognize the social challenges faced by newcomers and offer orientation programs designed to ease the transition to a new social environment.

Loneliness can also arise from dissatisfaction with the quality of existing relationships. Research has only begun to identify the specific features of relationships that are most closely tied to loneliness. Likely candidates include conflict; a lack of intimacy, reciprocity, and companionship; and low levels of rewards. Family research describes empty-shell marriages that provide few benefits to the partners but persist because of children or other barriers to divorce. Efforts to help unhappy couples might involve couple or family counseling. Marital enrichment programs such as those offered by religious groups also address this problem. For troubled relations in the workplace, conflict resolution or mediation might be appropriate.

C. Ending of Relationships

A major cause of loneliness is the loss of a loved one through death, divorce, or breaking up. Loneliness that results when a significant social relationship ends differs from other types of loneliness. It may be associated with grief, anger, and a variety of other intense emotions. Widowhood and divorce can lead to other major life changes in financial resources and housing, as well

as to changed social networks. Effective strategies for helping individuals who are experiencing the ending of relationships are tailored to the nature of the social loss. Specific programs have been created to help those experiencing divorce or widowhood. Rather than being cast as therapy, such groups often have titles such as "Seminars for the Separated" and include lectures by experts as well as small group discussions by people going through the same type of experience. It is important to recognize that although professional interventions and supportive friends can help ease the loss created by death or divorce, they cannot eliminate this distress entirely or quickly. It often takes considerable time for the emotional loneliness created by losing an important attachment figure to diminish. *[See* DIVORCE.]

D. Self-Help: Coping with Loneliness

Most lonely people do not seek professional help. A study of the transition to college found that less than 10% of first-year students had seen a counselor or therapist about how to overcome loneliness. Studies of widows find that few bereaved individuals turn to the clergy and fewer still to doctors or therapists. Relatively little is known about the ways in which people cope with loneliness, or how these coping strategies differ depending on the problem that caused the loneliness. One self-report study of adults identified four major coping patterns:

1. Sad passivity. A state of lethargy associated with watching television, sleeping, taking tranquilizers, overeating, drinking alcohol, or sitting and doing nothing.
2. Active solitude. Finding constructive ways to spend time, such as reading, exercising, or working.
3. Spending money. Finding ways to distract oneself from feeling lonely.

4. Social contact. Making efforts to reduce loneliness by calling or visiting a friend.

Many questions about coping with loneliness remain. How common are responses such as the four just described? How do reactions to loneliness change over time? Which coping strategies are most effective for particular types of loneliness?

This article has reviewed the current research on loneliness. Rather than being a sign of weakness, loneliness reflects our human need for social relationships, needs that all people share. This is why the only real cure for loneliness is to establish relationships that meet our desires for a sense of intimacy and connectedness with others.

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