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The Story of Hardiness: Twenty Years of Theorizing, Research, and Practice

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Since 1979, the development of the hardiness approach to enhancing performance and health has been facilitated by continual cross-fertilization between theorizing, research, and practice. At first, hardiness emerged from individual differences research on stress reactions as the attitudes of commitment, control, and challenge. Since then, extensive theorizing and practice, combined with considerable additional research, has led to the supplementation of hardy attitudes with hardy skills concerning coping, social interaction, and self-care. Also, the mechanisms whereby hardy attitudes and skills enhance performance and health are better understood. The hardiness approach has also expanded from the individual to the organizational level. All these developments form an example of the value of combining theorizing, research, and practice.

Twenty years have gone by since the introduction of the notion of hardiness. In the ensuing years, the hardiness approach has been considerably elaborated and is now an established aspect of psychology. Important in this development has been an active interplay between theorizing, research, and practice that is certainly informative and possibly instructive as to how ideas take hold in psychology. What follows is a summarization of this cross-fertilization that has taken place in hardiness theorizing, research, and practice efforts.

How Hardiness Started

The seeds of hardiness were planted in 1974 when a graduate student of mine at the University of Chicago brought me an article she had found in *Family Circle* magazine about how it is best to avoid stress, lest it kill you. I was at the time so preoccupied with my work on creativity that I had not become

aware of the trend in research and practice concerning the debilitating effects of disruptive changes on which the magazine article was based. As I quickly discovered, this trend presented a challenge to my contention that creative people actively search for changes, finding them more stimulating than debilitating.

The disagreement between the two positions seemed to highlight an issue of individual differences to me: Although stressful changes may be debilitating for some people, perhaps they are developmentally provocative for others. My research team and I at the University of Chicago discussed this issue, and before long we decided to collect some relevant research data.

The Illinois Bell Telephone Research Project

In looking around for a sample of highly stressed people, we hit upon Illinois Bell Telephone (IBT), a company that had used

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me from time to time as a creativity consultant. Decision makers at IBT were delighted at our interest in researching stress reactions in their managers, as its parent company, AT&T, was facing federal deregulation and mandated divestiture of its subsidiaries. In 1975, we began our 12-year longitudinal research program in which managers in the sample were tested psychologically and medically every year. In 1981, the cataclysmic deregulation and divestiture took place and is still regarded as the greatest upheaval in corporate history. In barely a year, IBT decreased its workforce by almost half. One manager told me that he had had 10 different supervisors in one year, and that neither they nor he knew what they were supposed to do. Several studies at IBT demonstrated that hardiness moderates the stress-illness relationship. In her dissertation, Kobasa (1979) found through a retrospective design that among managers, all of whom were high in stresses, those who showed certain attitudes experienced fewer mental and physical illness symptoms. Subsequent IBT studies (Kobasa, Maddi, & Courington, 1981; Kobasa, Maddi, & Kahn, 1982; Kobasa, Maddi, & Puccetti, 1982) used prospective designs to show that these attitudes, along with social support and physical exercise, did indeed provide causative protection against stress-related illnesses, despite the fact that inherited vulnerabilities increase the risk of such illnesses.

Measured by a number of existing scales, the attitudes that emerged as stress buffers seemed to be well conceptualized as commitment, control, and challenge. What we called commitment was a predisposition to be involved with people, things, and contexts rather than be detached, isolated, or alienated. Control involved struggling to have an influence on outcomes going on around oneself, rather than sinking into passivity and powerlessness. Challenge signified wanting to learn continually from one's experience, whether positive or negative, rather than playing it safe by avoiding un-

certainities and potential threats. Before long, we were calling these interrelated attitudes the 3Cs of hardiness.

As we tried to learn more about stress management at IBT, two additional studies stimulated thought on the larger picture of hardiness. In one study (Kobasa, Maddi, Puccetti, & Zola, 1986), hardiness, social support, and physical exercise were compared in their stress-management effectiveness. Among managers who were all above the sample median in stresses, hardiness was roughly twice as effective in decreasing the subsequent risk of illness than were social support and physical exercise. Of particular interest was the synergistic beneficial effect of these three stress-buffering variables: Managers with two stress buffers did somewhat better than those with only one, but those with all three stress buffers did remarkably better than those with only two.

The other study was Khoshaba's dissertation (Khoshaba, 1990; Khoshaba & Maddi, 1999a), which concerned the early development of hardiness. A subsample of managers selected to be either very high or very low in hardiness were interviewed blind concerning their early life experiences. Content analyses of their statements showed that by comparison with the others, the managers high in hardiness remembered not only a disruptive, stressful early family life, but also that they were selected by their parents to be successful nonetheless, accepted that role, and worked hard to justify being the family's hope.

Theorizing About the Place of Hardiness in a Life

There was, of course, specific theorizing involved in coming up with the three hardy attitudes as descriptive of what was going on in the findings. That there were individual differences in these attitudes led to the more comprehensive theoretical questions that arose in the late 1970s and early 1980s of the overall difference hardiness makes in a

life. By that time, I was using existential psychology to good effect in my clinical practice, and it seemed a more natural context for hardiness than other viewpoints, such as behaviorism or psychoanalysis. According to existential psychology (Frankl, 1960; Kierkegaard, 1954; Maddi, 1970; May, 1958), meaning is not given but rather is created through the decisions people make and implement. Virtually everything we do or fail to do constitutes a decision, whether we recognize this or not. Needless to say, some decisions are big and others are small. As specific decisions accumulate, more pervasive meaning systems and general directions emerge. Once established, meaning systems and directions can be changed only by sharpened awareness and a concerted effort.

Whatever their specific content, decisions by their nature require that we choose the future, that is, the path that is relatively unfamiliar, or the past, that is, the path that is relatively familiar (Maddi, 1988, 1998). A simple example is being confronted with a decision to take a different job in another industry that may require new learning or remaining in our present job that is certainly adequate, if by now routine. According to existential psychology, consistently choosing the future leads to continued personal development and fulfillment and is therefore the most desirable stance. But, what often deters people from future-oriented decisions is that they arouse ontological anxiety, because we cannot predict in advance what the outcome will be. After all, taking that new job may severely shake our foundation of security, perhaps even leading to failure. Resting on our laurels by staying in the present job may seem wisest. To be sure, turning down the new job will bring a bit of ontological guilt over missed opportunity, but this may well seem like less of a problem for us than the anxiety of uncertainty.

What is needed for us to be provoked regularly toward the developmentally more valuable choices for the future is existential cour-

age. For the theologian Kierkegaard (1954), this courage was the faith that in choosing the future one was drawing oneself closer to God, who is, after all, the prototypical future-chooser. Although also a theologian, Tillich (1952) more recently defined existential courage secularly as self-confidence and life acceptance.

It is my view that the combined hardy attitudes of commitment, control, and challenge constitute the best available operationalization of existential courage (Maddi, 1988). The hardy attitudes structure how you think about your interaction with the world around you and provide motivation to do difficult things. When they occur together, the 3Cs of hardy attitudes facilitate awareness that you formulate life's meaning for yourself by the decisions you make and that choosing the future regularly, despite the anxiety of uncertainty, leads to the most vibrant life.

Why Is It Important to Have All Three Hardy Attitudes?

It is important to recognize that to truly express existential courage, a person must possess all 3Cs of commitment, control, and challenge. American psychology is currently preoccupied with the importance of the control attitude, and I have encountered the opinion from others that it is this attitude that fully defines hardiness. Imagine people high in control but simultaneously low in commitment and challenge. Such people would want to determine outcomes but would not want to waste time and effort learning from experience or feeling involved with people, things, and events. In that these people would be riddled with impatience, irritability, isolation, and bitter suffering whenever control efforts fail, we see something close to the Type A behavior pattern, with all of its physical, mental, and social vulnerabilities. Such people would also be egotistical and would be vulnerable to seeing themselves as better than the others and

as having nothing more to learn. There is surprisingly little to call hardiness in this orientation.

Now imagine people high in commitment but simultaneously low in control and challenge. Such people would be completely enmeshed with the people, things, and events around them, never thinking to have an influence through, or to reflect on their experience of, their interactions. They would have little or no individuality, and their sense of meaning would be completely given by the social institutions in which they would lose themselves. Such people would be extremely vulnerable whenever any but the most trivial changes were imposed on them. There is certainly little to call hardiness here.

Finally, imagine people who, though high in challenge, were simultaneously low in control and commitment. Such people would be preoccupied with novelty, caring little for the others, things, and events around them and not imagining they could have an influence on anything. They might appear to be learning constantly, but this would be trivial by comparison with their investment in the thrill of novelty per se. They would resemble adventurers (Maddi, 1970) and could be expected to engage in games of chance and risky activities for the excitement that they bring. Once again, there is little of hardiness in this.

I could continue by showing you how any two of the 3Cs, without the third, is still shy of hardiness. However, I hope that this is not necessary and that the point is clear that it is the combination of all 3Cs that constitutes hardiness.

Where Does Hardiness Come From?

Existential courage is presumably not inborn, to judge from Nietzsche's (1968, p. 254) exclamation, "Whatever doesn't kill me makes me stronger." But existential psychology has little else to say about the con-

ditions leading to the development of courage. Fortunately, the study mentioned before (Khoshaba & Maddi, 1999a) provides an empirical basis for assuming that hardiness develops in people who are encouraged by those around them to believe that they can turn adversity into opportunity and who observe themselves actually making this happen. Over time, the feedback one obtains from this pattern of reaction to stresses should build the hardy attitudes of commitment, control, and challenge that constitute existential courage.

Further Development of the Hardiness Approach Through Practice

Soon after the cataclysmic deregulation and divestiture, IBT asked us if we could use the research findings we had accumulated to help them weather the storm. We took on the challenge and incorporated the Hardiness Institute as a consulting firm. What emerged for IBT was the early version of hardiness training.

The Training Approach

The approach involved 15 weekly sessions in which small groups of managers were taught and encouraged to cope with their major stressors by the use of four hardy coping techniques and to use the feedback from their efforts to deepen their hardy attitudes (Maddi, 1987; Maddi, Kahn, & Maddi, 1998). These managers were sorely stressed, and the trainers not only helped them to believe that they could solve the problems for their own and the company's good, but also taught them the techniques through which they could actually turn disruptions into opportunities. We tried to make this training program incorporate the factors that in the early history study (Khoshaba & Maddi, 1999a) led to the development of hardiness by forming an analogy between the disrupted family and the dis-

rupted company and between the parents who encouraged and assisted their offspring and the trainers who did the same for their trainees.

As to the specifics of the approach, trainees try to turn a stressor into an opportunity by starting with situational reconstruction (Maddi, 1987), an imaginative task designed to suggest alternative ways of thinking about the stressor that may provoke a broadened perspective and a deepened understanding. Success positions them to go on to the action plan technique, carry out the plan developed, and use the ensuing feedback to deepen their hardy attitudes. But if their efforts with situational reconstruction are unsuccessful, they go on to focusing (Gendlin, 1978), a way of checking whether insufficiently recognized emotional reactions are interfering with their imagination. If emotionally based insights from this technique free up their imagination, then they are ready to go on to the action plan technique in hopes of resolving the stressor and deepening their hardy attitudes. But if they remain stuck despite efforts with situational reconstruction and focusing, then the stressor is regarded as a given, or something they cannot fix. At that point, they need to protect their hardiness by avoiding bitterness and self-pity through the compensatory self-improvement technique (Maddi, 1987). In this technique, they work on a related stressor that can be resolved so as not to be undermined by the given.

Training Effectiveness

In a waiting-list control study (Maddi, 1987), this early version of hardiness training increased not only hardiness levels, but also job satisfaction and social support, while simultaneously decreasing both self-report and objective indices of strain. The beneficial results lasted for the 6-month follow up period studied. For more precise control purposes, a subsequent study (Maddi,

Kahn, & Maddi, 1998) compared hardiness with two other forms of training, namely, relaxation-meditation (a common stress management approach) and passive listening (a placebo and social support control). The passive listening condition tended to help a bit, the relaxation-meditation condition helped even more, but the hardiness training condition was clearly the most effective approach.

Conceptualizing the Hardiness Model

Although the mechanisms through which hardiness influences health and performance in the face of stressful circumstances had been an ongoing theoretical concern, the current hardiness model emerged only when the more abstract initial conceptual and research knowledge was supplemented by practice applications in the form of hardiness training.

Figure 1 shows the hardiness model of the vulnerability and resistance factors influencing well-being. The bad news is that as acute and chronic stresses mount, organismic strain may become so intense and prolonged as to deplete bodily resources, thereby increasing the risk of breakdowns in the form of physical illnesses, mental disorders, or behavioral failures. Furthermore, the breakdowns are most likely to occur along the lines of inherited vulnerabilities. The good news in Figure 1 is that there is a breakdown-prevention system in which hardy attitudes motivate people to react to stresses with effective coping, social support interactions, and lifestyle patterns. That the arrows linking components of the breakdown-prevention system run both ways signifies the transactional nature of the components. Not only do hardy attitudes motivate hardy coping, social support, and lifestyle skills, practice of these hardy skills (such as in training programs), properly reflected on, can deepen the hardy attitudes that will help to keep the whole process going.

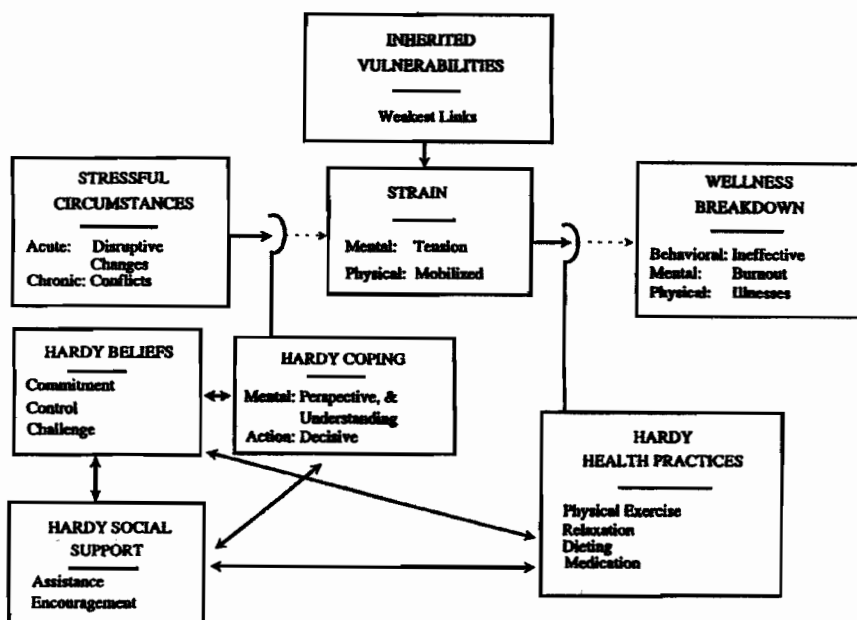


Figure 1. The hardiness model. Copyright © 1993 by the Hardiness Institute, Inc.

More Research on the Behavioral and Health Implications of Hardiness

Literature searches show close to 1,000 hardiness references over the last 20 years. Also, our hardy attitudes test has been translated into 10 Asian and European languages, to say nothing of the numerous countries that use it in English. There is by now so much hardiness research around the world that summarizing it all here is not feasible. Fortunately, there have been some recent reviews of this body of work (e.g., Funk, 1992; Maddi, 1990; Orr & Westman, 1990; Ouellette, 1993). What I will concentrate on here is research done by my present and former students and me aimed at determining the validity of the hardiness model and addressing issues that have arisen.

Health, Performance, and Conduct Studies

Similar results to those obtained at IBT have been reported for people working in

other occupations, such as bus drivers (Bartone, 1989), lawyers (Kobasa, 1982), and nurses (Keane, Ducette, & Adler, 1985). Furthermore, Bartone (1999) has been studying military personnel in various stressful circumstances, such as peace-keeping and combat missions. Using various dependent variables and prospective designs, he has found considerable evidence that the lower hardy attitudes are, the greater is the likelihood that the life-threatening stresses and the culture shock of military engagement abroad will lead to such mental breakdowns as depression and posttraumatic stress disorder. Similar results have been found in the context of non-life-threatening culture shock for American employees on work missions abroad (Atella, 1989) and for immigrants to the United States (Kuo & Tsai, 1986).

The studies mentioned thus far tended to use self-report measures not only of hardiness but also of stress-related illness symptoms. This led to the criticism that perhaps all the results show is the pervasive effect of

negative affectivity, or neuroticism (e.g., Funk & Houston, 1987; Hull, Van Treuren, & Virnelli, 1987). That the findings cannot be explained away like this is indicated by a study (Maddi & Khoshaba, 1994) in which hardy attitudes and an accepted measure of negative affectivity were entered into regression analyses as independent variables in the attempt to predict the clinical scales of the Minnesota Multiphasic Personality Inventory (MMPI) as dependent variables. With the effects of negative affectivity controlled, hardiness was still a pervasive negative predictor of MMPI clinical scale scores. Further undermining the criticism is a study that used an objective measure of strain (Maddi, 1999), showing hardiness to be higher among employees whose nurse-measured blood pressure was in the normal range than it was among those with high blood pressure.

The negative affectivity criticism is also undermined by the studies to be discussed now, which used some objective measures of performance and conduct. As to performance, Maddi and Hess (1992) measured hardiness levels of male high school varsity basketball players in the summer and obtained on them the objective statistics accumulated by their coaches throughout the ensuing season. Hardiness predicted six out of seven indices of performance in the expected direction, showing that even among players good enough to be on the varsity team, hardiness predicted performance excellence. The only index not predicted was free throw percentage, which summarizes, of course, what happens in the only period of relative calm in an otherwise tumultuous game. Similarly relevant to performance, Bartone and Snook (1999) found that hardiness, assessed at the arrival of a cohort of West Point Military Academy cadets, was the strongest predictor of leadership behavior over the 4 years of their schooling.

As to conduct, Maddi, Wadhwa, and Haier (1996) studied the relationship of hardiness to alcohol and drug use among high school

graduates about to register in college. Whereas a family risk factor index was positively correlated with self-report of whether alcohol and drugs were tried, hardiness was negatively correlated with self-report of the frequency with which alcohol and drugs were used. As to more objective measurement, drug use assessed through urine screens correlated negatively with hardiness. Although the relevant studies are not numerous enough for a finished conclusion, it appears that hardiness protects against not only illness, but performance and conduct breakdown as well.

Construct Validity Studies

There is also by now an accumulation of studies that are best considered relevant to construct validation, as they test other implications of the hardiness model than those directly involving physical, mental, or behavioral breakdown. But before going on to them, I should point out that the measure of hardy attitudes currently in use, the 50-item Personal Views Survey (2nd ed., or PVS-II; Maddi, 1997), regularly provides commitment, control, and challenge scores that are sufficiently intercorrelated to warrant their being considered part of an overall entity. This conclusion could not be so easily reached with earlier versions of the PVS, which, especially when used with college students, sometimes yielded challenge scores that were uncorrelated with commitment, control, or both. Fortunately, this earlier problem is under control, and there is a shorter, psychometrically improved 18-item version of the test, the Personal Views Survey (3rd ed., rev., or PVS-III-R; Maddi & Khoshaba, 2001) now available.

In order to further validate that the PVS is indeed tapping the theoretical dimensions of hardiness, a study (Maddi, 1999) was performed in which working adults wearing pagers completed a short questionnaire concerning what they were doing, with whom, and how they felt about it every time they

were paged at random 10 times during each of three consecutive days. They had completed the PVS a month before the pager involvement. Workers high in hardiness reported that their activities were more enjoyable, more interesting, more important, and less imposed, and they showed more openness to experience and feelings of support from others than did workers low in hardiness. There is much in these findings that supports the contention that the PVS measures the hardy attitudes of commitment, control, and challenge.

Further evidence that, as expected, hardiness is associated with openness to experience and imaginativeness is now available (Maddi, Harvey, Lu, & Persico, 1999). In one sample, hardiness showed a negative relationship to repressive style as measured by the combination of manifest anxiety and social desirability that has become accepted. In another sample, there were indications that hardiness is positively related to imaginativeness as measured by the Unusual Uses Test, a well-known index of creative behavior.

There are now several studies testing the contention that one way hardiness protects against stress-related breakdowns is by leading to effective or transformational coping (i.e., turning stressful circumstances into opportunities instead) and protecting against self-limiting or regressive coping (i.e., protecting oneself from stressful circumstances by denial and avoidance). In an analysis of variance design, one study (Maddi, 1999) considered the effects of stressful event context, hardiness, and the interaction of the two on transformational and regressive coping. Although event context had a main effect, such that work stressors more regularly elicited transformational coping than did personal life stressors, hardiness had an interaction effect that accelerated this tendency. As to regressive coping, stressful event context was not a factor, but hardiness generally decreased the likelihood of this self-limiting reaction.

Another coping investigation (Maddi & Hightower, 1999) involved three related studies, which compared the relative influence of hardiness and optimism on transformational and regressive coping. This comparison was done by entering hardiness and optimism in multiple regression analyses so as to determine the influence that each variable, purified of the effects of the other, had on coping style. Involving undergraduate students with a wide range of everyday stressors as participants, the first two studies differed in the tests used to assess transformational and regressive coping styles. The results, however, were the same: By comparison with optimism, hardiness was a more powerful influence on coping in general and especially in the avoidance of regressive coping. Using the same approach, the third study focused on women who had breast lumps and were arriving at a specialty clinic for diagnosis of whether or not the lumps were cancerous. Under this life-threatening stressor, optimism finally energized as many coping efforts as did hardiness, but it was still true that only hardiness was a negative predictor of regressive coping efforts. Taken together, these three studies show that hardiness operates as expected with regard to coping and that, by comparison, optimism may be laced with naïve complacency.

Current Elaborations of the Hardiness Approach

The rate of development of the hardiness approach is increasing rapidly now as a function of the confluence of theorizing, research, and practice and fueled by increasing psychosocial problems.

The Growing Practical Need for Hardiness Assessment, Training, and Consulting

The days when the upheavals at IBT were unusual are behind us. The rising rate

of change these days truly amounts to turbulence or what has even been called chaos (Peters, 1988). Megatrends (Naisbitt, 1982) beyond anyone's control abound. There is the breathtakingly fast transition we are making from an industrial to an information society, with everyone scurrying to keep up with the continual, dramatic advances in computer and Internet technology and the changes they introduce into everyday life. There is the worldwide increase in competition and redistribution of wealth that has been taking place as U.S. post-World War II supremacy has waned. There is the collapse of the Soviet Union and the U.S. defense industry along with it. There is the technology-fueled transition from parochialism to globalization. There are the shock waves produced by the very justifiable, inexorable pressures toward equal opportunity for minorities and women. Trying desperately to adapt to the pressures of change, companies are continually restructuring—sometimes decentralizing and other times merging, sometimes decreasing and other times increasing management levels, sometimes downsizing and other times upsizing.

The trickle-down effect of these and other megatrends has been a powerful disruption of the relatively stable living patterns we had over many years come to regard as natural. In all this, our individual existences have been greatly stressed, as shown in increasing levels of physical and mental illnesses, decreased job performance and morale, and increased substance abuse and violence. The disruptive changes and their debilitating effects on our functioning have also sorely taxed, if not disconfirmed, our tradition-based patterns of the meaning of life. This has brought many of us to the brink of spiritual bankruptcy.

Hardiness, or existential courage, is needed now more than ever. The solution to destructive or deteriorated behaviors and spiritual bankruptcy will come when we not only accept change as normal, but also see

the developmental value in it and use our imagination and energy to discern and pursue the future directions it provides. It is this hardy approach that will turn change into opportunity.

Perhaps this is why hardiness assessment, training, and consulting have increased in demand so much in recent years. In response to this demand, we have elaborated the services available through the Hardiness Institute. In the attempt to respond more effectively to the mounting stress problems of individuals and organizations, we now advocate a more comprehensive expression of the hardiness model shown in Figure 1. Deborah M. Khoshaba, director of Program Development and Training at the Hardiness Institute, has taken the lead in these new developments.

HardiSurvey Assessment

Specifically, assessment now involves the HardiSurvey III-R, a 65-item questionnaire that measures the vulnerability factors of stress, strain, and regressive coping and the resistance factors of hardy attitudes, hardy coping, and hardy social support. The vulnerability and resistance factors are compared with each other in a wellness ratio. This test can be supplemented by the HardiSurvey IV, which adds information about the resistance factors of hardy relaxation and hardy physical activity. Accumulating reliability and validity data augur well for these two tests. Available on the Internet or in hard copy form, the questionnaires generate customized individual reports. Individual questionnaires can also be aggregated into organizational or group reports.

HardiTraining

The emphasis of our current approach is to train both hardy skills and hardy attitudes (Khoshaba & Maddi, 1999b, 1999c; Maddi, 1994). The hardy skills of coping, social sup-

port, relaxation, nutrition, and physical activity are what we call the "five fingers of the hand." In the training process, feedback obtained from exercise of the hardy skills is used to build the hardy attitudes of commitment, control, and challenge, which we call the "palm of the hand." In other words, there is a synergistic articulation between the motivation constituted by hardy attitudes and the actions involved in hardy skills.

Central to the *HardiTraining* program are workbooks (Khoshaba & Maddi, 1999b, 1999c) covering all components of the hardy skills and attitudes. These workbooks contain narrative, examples, exercises, and checkpoints. Trainees go through the workbooks until they encounter the checkpoints, which are placed at regular intervals. These checkpoints are the occasion of small-group or one-on-one interactions between trainees and trainers.

The *HardiTraining* program is designed to be flexible. Any combination of or all of the hardy skills may be included, as long as there remains emphasis on the feedback from efforts that builds the hardy attitudes. We are often guided as to the composition of the program by the results of the pretraining *HardiSurveys*. Whenever possible, we also administer the *HardiSurvey* posttraining in order to provide some evaluation of the effects of the program.

Individual Applications

To be sure, hardiness assessment and training are important in tertiary prevention, that is, for people whose health or performance is already compromised, so that they will not be further undermined and so they will have a greater likelihood of improving. Those who can be helped in this way are patients already suffering from degenerative disorders (e.g., heart disease, cancer) and law-breakers who need rehabilitation. We have taken one step in this direction by working with several health maintenance organizations.

The hardiness approach is similarly important in secondary prevention, where people are at risk of but have not yet undergone health or performance decrements. This includes people in especially risky and stressful professions (e.g., military personnel on combat or peace-keeping missions, police officers) or people whose work or private lives are especially disrupted (because of such things as divorces or deaths in the family or company divestitures or mergers). Most of our work with adults falls into this category of secondary prevention.

In our tumultuous times, however, it is essential that hardiness also be applied in primary prevention, where the people involved have not yet encountered the level of stresses that threaten to undermine them. Youngsters in school need hardiness assessment and training in order that they be adequately prepared in adulthood to turn the rising tide of disruptive changes into opportunities rather than let them be disasters. Currently, there are several 2- and 4-year colleges offering hardiness assessment and training as regular credit courses. This is a step in the direction of primary prevention, but it would be even better to expose elementary and high school students to hardiness assessment and training. We are currently taking steps in this needed direction.

Organizational Applications

The distressed status of companies we encounter these days has led us into organizational consulting. In expanding the hardiness approach from individuals to organizations (Maddi, Khoshaba, & Pammenter, 1999), we have asserted that resiliency and effectiveness are what organizations need also if they are to be successful in our changing times. *HardiOrganizations* have a characteristic culture, climate, structure, and workforce.

The values forming the culture of *HardiOrganizations* are isomorphic with the hardy attitudes at the individual level. Spe-

cifically, the attitudes of commitment, control, and challenge framing individual hardiness correspond at the organizational level to the hardy values of cooperation, credibility, and creativity. When HardiIndividuals interact in a group, translation occurs of their attitude of commitment into valuing collaboration with each other, their attitude of control into valuing the credibility that signifies taking responsibility for actions, and their attitude of challenge into valuing creativity as the search for innovative problem solutions.

At the level of climate, people in a HardiOrganization will not just pay lip service to its values but, rather, will exemplify them in their day-to-day, moment-to-moment interactions with each other. This will form a healthy learning environment in which people will work together in solving problems through a coping process that involves searching for perspective and understanding and using what is learned thereby to take decisive actions. In interacting with each other, they will both want for themselves and extend to others assistance and encouragement, thereby really functioning as a team. And when a HardiOrganization member exhibits the various behaviors mentioned here, the others will applaud that and use it as a model for their own advancement.

The structure of a HardiOrganization will facilitate the values and climate already identified. In most instances, a matrix management approach will be used in which teams devoted to change-oriented projects will have a significant decision-making role in the directions and emphases of the organization.

As to personnel makeup, the HardiOrganization will, over time, include an increasingly higher proportion of HardiIndividuals. This is ensured because the usual functions of promotions, hiring and firing, gain sharing, member benefits, and job training will reflect the ongoing culture, climate, and structure of the HardiOrganization. Despite the continually changing

work environment, HardiIndividuals will not wish to leave employment at HardiOrganizations that understand and value them. But, if they are forced to leave by company reorganization, these HardiIndividuals will not go away mad but will instead continue their proactive, innovative ways in other jobs.

Closing Remarks

What has been attempted here is a comprehensive picture of hardiness and its development over the last 20 years. From the beginning, we have been involved in conceptual, research, and practice efforts. It has been conceptual effort that highlighted what made sense and nonsense, how things fit together, and the role of hardiness in a broader life view. It has been research effort that clarified strengths and weaknesses, improved assessment and training approaches, and lent credibility to the enterprise. It has been practice effort that underscored individual and organizational requirements and the need to respond to them directly and effectively. But without the continual interplay of the conceptual, research, and practice efforts and the heightened provocation that ensued, the hardiness approach would not have developed as it has.

As the 21st century unfolds, our world seems embroiled in an ever-increasing rate of change. Perhaps it is hardiness that will help us turn this turbulence into meaningful and fulfilling directions, rather than succumbing to behavioral, conduct, and health breakdowns.

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