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CHAPTER

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Preventing Marital Distress: What Does Research Offer?

Introduction

Divorce rates in Western countries have focused attention on the need to support couples experiencing marital problems. Unfortunately, only about half the couples who receive marital therapy benefit from it and few experience long-term improvement in their relationship (Jacobson & Addis, 1993). But even if success rates improved dramatically, the ubiquity of marital discord makes it unlikely that marital therapy will ever be able to meet the need for services. Largely in response to these problems, a variety of marital prevention and enrichment programs have been developed. The goal of such programs is to prepare couples for future problems and resolve any existing marital problems before they become significant (Coie et. al, 1993; Muehrer, Moscicki, & Koretz, 1993).

In view of their significance for public health, it is important to evaluate the effectiveness of programs designed to prevent marital problems. This can only be done by systematic research. However, the contribution of research to the area of prevention is not limited to program evaluation. Research findings on marriage can also inform the content and delivery of prevention programs. For example, research on the longitudinal development of marital relationships can be used to ensure that programs target characteristics of marriage that influence long-term outcome. Incorporating research findings into prevention programs is clearly a con-

tinual process of monitoring the empirical marital literature and refining prevention programs to best represent what we know about marriage.

The aim of this chapter is to illustrate the contribution of research to the prevention of marital problems. The chapter is divided into two parts. In the first, we identify programs that have been subject to empirical study and evaluate their efficacy. The second part examines the extent to which the content and evaluation of existing programs are informed by current knowledge of marriage and then offers a broader perspective on prevention programs informed by research that has had little impact on the prevention literature. We end with a summary of the main themes of the chapter.

☐ The Efficacy of Prevention Programs

A variety of providers and approaches have been used in attempts to prevent marital problems. The clergy and church-affiliated organizations are perhaps the most extensive providers of marriage preparation courses (Markman, Floyd, Stanley, & Lewis, 1986). Such services are typically limited to educating couples about the importance of maintaining religious practices in the home, and providing guidance and advice about current problems or anticipated future problems as expressed by the couple. While such services are the most widely available, they vary widely in program content, duration (from one to several sessions), and format (one couple vs. group interventions), and there is little empirical evaluation of these programs beyond their immediate effects (Giblin, Sprenkle, & Sheehan, 1985).

Other programs are more closely linked to the professional literature on marriage. For example, Relationship Enhancement interventions (Guerney, Brock, & Coufal, 1986) are a form of intervention that has been effectively used with newlywed couples (Avery, Ridley, Leslie, & Milholland, 1980) and in established marriages (e.g., Brock & Joanning, 1983). These interventions focus on enhancing the positive aspects of relationships, rather than removing or preventing marital pathology (Guerney et al., 1986). Such programs probably serve to prevent marital distress indirectly, through enhancing marital quality, and so are not strictly preventive approaches.

The most widely studied programs with an exclusive preventive focus are those based on behavioral marital theory. The essential principle of this approach is that spouses respond to their partners according to the contingencies experienced; happy relationships are assumed to occur when interactions are experienced as rewarding overall, and unhappy relationships are assumed to result from a history of interactions experienced as aversive. Behaviorally based programs therefore aim to maximize the likelihood that marital interactions will stay positively reinforcing and minimally aversive.

A prototypical example of behavioral approaches is the Premarital Relationship Enhancement Program (PREP; Markman et al., 1986). PREP is based on the idea that there are several developmental tasks that couples need to achieve together (Markman et al., 1986), including the need to (a) develop and engage in constructive communication and conflict resolution skills, (b) develop realistic attitudes and expectations regarding marriage, (c) develop interactions that satisfy the basic emotional and psychological needs of each partner, (d) become primary sources of gratification and anxiety reduction, (e) develop constructive mechanisms for regulating enmeshment and independence, and (f) develop skills of adaptation to changes within the relationship. The essential theme is that couples need to develop skills to manage problems that may erode marital quality. In practice, PREP therefore consists of therapy techniques such as training in speaker and listener skills, expressing negative feelings and managing conflict, problem solving, identifying and changing unrealistic expectations and relationship beliefs, and sexual enhancement.

The emphasis of PREP is on the future of the relationship, rather than directly addressing current problems. It therefore differs in an important way from a behavioral analysis of marriage which emphasizes the learning history of spouses prior to and during the relationship. PREP minimizes attention to learned history prior to the relationship, as it does not emphasize the differences between people entering marriage that potentially cause problems, but the way these differences are handled. Markman's PREP program therefore represents a rather specialized form of the potential range of behaviorally based prevention program content.

Short-Term Efficacy of Marriage Preparation Programs

Many studies have evaluated the short-term benefits of preparation programs. Giblin et al. (1986) conducted a meta-analysis of 85 prevention and enrichment programs that varied across a range of dimensions, such as content (e.g., provision of manuals, activities), format (group vs. individual couple), duration (from 2 to 36 hours contact time), orientation (e.g., communication focused, discussion based, religious programs, behavior exchange focused), subject characteristics (e.g., mild marital distress or happy), outcome measures (observed behavior vs. self-report) and follow-up (from 2 to 52 weeks postintervention). Because of this variability, it is difficult to delineate clearly effects associated with dependent variables of interest.

Across all studies, the average participant improved from pretest to posttest more than did 67% of those in corresponding control groups (average effect size of .44, with a 95% confidence interval ranging from .79 to .48). This result indicates a modest increase of 17% improvement compared to an ineffective treatment (where the average participant is better off than 50% of the controls). For premarital couples the average effect size across 23 program types (assessed in 43 studies) was .53. When comparing these effects to the average of .85 found for psychotherapy studies (Smith, Glass, & Miller, 1980), the impact of these programs appears modest.

In this meta-analysis, a closer examination of different types of programs revealed that Relationship Enhancement programs demonstrated the largest effect sizes, couple communication programs and marriage encounter groups showed intermediate effect sizes, and attention placebo and discussion groups showed the smallest effect sizes. This meta-analysis includes studies using couples who were mildly maritally distressed. Because maritally distressed couples may show more significant short-term change (given that there is more room for immediate change), and higher percentages of maritally distressed couples were present in Relationship Enhancement studies, it is unclear whether overall effect sizes were inflated in Relationship Enhancement programs. Another finding of this meta-analysis was that stronger effects were observed for measures which used behavioral observation compared to self-report measures.

Consistent with Giblin et al.'s (1986) findings, Markman and colleagues show that PREP leads to short-term treatment gains. Although no significant differences were found immediately following the program, a 1-year follow-up showed that PREP couples exhibited more positive and fewer negative communication skills and higher marital satisfaction (Markman, Jamieson, & Floyd, 1983) than couples who had not completed the program.

Even though they used the same format and experimental design as Markman and colleagues (1983), Van Widenfelt, Hosman, Schaap, and Van Der Staak (1996) found no significant short-term gains using a Dutch version of PREP that included an additional session on family-of-origin issues. An important difference that may account for this disparity in findings was the selection of couples who were currently mildly maritally distressed and included at least one partner who had experienced parental divorce (two risk factors for marital difficulties identified by Karney & Bradbury, 1995). Postintervention effects were first assessed approximately 6 months after completing the intervention, and no significant differences in overall marital quality between treatment and control groups were observed at this time or at a later follow-up 2 years after beginning the intervention. In fact, at the first follow-up, couples who had participated in the program had higher ratings of problem intensity than control couples, a greater number of negative psychological symptoms, and higher dissatisfaction with life.

The different findings obtained in Markman et al.'s (1983) and Van Widenfelt et al.'s (1996) research may also be due to the differences in outcome measures used. Markman and colleagues utilized observational measures, whereas Van Widenfelt and colleagues relied on self-report measures of outcome (observations were conducted before the intervention, but no observational data is presented). Perhaps observational data are more sensitive to change in couples where marital distress is generally not present, a hypothesis supported by Giblin et al.'s (1985) meta-analytic study (see a later section for a discussion of outcome measures).

Long-Term Efficacy of Marriage Preparation Programs

More important than short-term outcome is whether prevention programs produce lasting effects. The only study that has evaluated long-term benefits focuses on PREP. Markman, Floyd, Stanley, and Storaasli, (1988) have shown that at a 3-year follow-up, couples receiving PREP reported significantly higher sexual satisfaction, less intense marital problems, and higher relationship satisfaction than control couples. Five years after the intervention, couples receiving treatment reported more positive and fewer negative communication skills and less marital violence than control couples (Markman, Renick, Floyd, Stanley, & Clements, 1993). Detailed 12-year follow-up results are forthcoming, but preliminary analyses show that the PREP group had lower rates of divorce and separation than control groups, though the difference in rates was not statistically significant (19% for PREP couples, 28% for controls; Stanley, Markman, St. Peters, & Leber, 1995).

What degree of confidence can we have in the conclusion that these sorts of preparative interventions impact skills important to the maintenance of satisfying relationships? Unfortunately, the above PREP evaluations lacked an attention-only control condition, making it unclear whether the interventions used were responsible for the effects, or whether the effects were due to some general attention factor. Nevertheless, preliminary findings suggest that PREP programs result in added postintervention gain compared to premarital interventions commonly offered by religious institutions (Renick, Blumberg, & Markman, 1992; Blumberg, 1991) and to information-only control groups (Behrens & Halford, 1994). Replication using longer follow-ups and larger samples is needed before firm conclusions about the added efficacy of PREP can be

made. Also, several researchers have raised questions about the selection biases that occur in these programs, and question whether they reach couples at high risk of marital deterioration. Perhaps such couples would have had successful marriages regardless of their participation in a prevention program (Sullivan & Bradbury, 1996).

Unfortunately, there is little evidence to suggest that the samples used in Markman et al.'s (1993) study were at risk. In fact, recent evidence suggests that the consumers of prevention programs may be couples who are likely to have successful marriages even without an early marital intervention. Sullivan and Bradbury (1996) compared community samples of newlywed couples who received premarital counseling with those who did not and found that participating couples were not at greater risk for marital difficulties. In some cases, participating husbands were at significantly lower risk for marital difficulties than husbands who did not participate. It appears that the treatment effects of evaluated prevention programs are confounded by the inclusion of both low- and high-risk couples in samples.

Should we expect short marriage preparation courses to have such long-lasting effects? Markman and colleagues (1993) report that the effects of PREP appeared to be weakening by five years after the intervention. Long-term effects make several assumptions about how couples retain and implement preventive strategies. Uncovering these assumptions and subjecting them to empirical evaluation is critical to improving the efficacy of prevention programs, and we therefore briefly discuss processes assumed to produce durable treatment changes.

Uncovering Processes Assumed to Produce Durable Treatment Effects

Couples are likely to experience changes in their circumstances over time (children are born, careers and social networks are likely to change, and so on). When spouses need to implement the skills taught in marital prevention programs, they may be experiencing stressors that were not present when the skills were initially acquired. Do the skills learned in a short marriage preparation course produce lasting changes to couple interactions? If so, there are several unresolved issues regarding how couples utilize the skills and information from such programs.

We might hypothesize that partners consciously retrieve and implement strategies taught in marital preparation courses. Alternatively, we might assume that they do not consciously retrieve earlier learned strategies because once these strategies replace ineffective skills, they become overlearned and continue, not so much because they result in external

reinforcement, but because they are more effective and efficient. From this perspective, couples acquire skills during marital preparation that are naturally reinforced and become part of their behavioral repertoire for dealing with stress or problems. So, by the time long-term follow-ups occur, couples may no longer consciously retrieve strategies initiated through marriage preparation. It would be helpful to examine the retrieval of course content in evaluating the long-term impact of marriage preparation. If the later use of skills depends on retrieval of program content, then steps can be taken to enhance the memorability of program material (e.g., through the use of mnemonics). However, if skill use is not associated with recall, greater emphasis might be placed on practicing skills during the course so that they become overlearned.

The mechanism that accounts for the durability of effects also has implications for booster sessions, an addition suggested for future prevention programs (Markman et al., 1993). If the use of skills depends on recall of prevention course material, such sessions may be more valuable than if skill use is maintained by natural reinforcers and does not require recall. In any event, 1 year after completing the intervention, Van Widenfelt and colleagues (1996) offered a booster session that reviewed the intervention and aspects of their relationship the couple had identified as problematic. As noted, however, there were no intervention effects 2 years after its implementation. Any impact of booster sessions may be increased through offering them just prior to important developmental life transitions, such as parenthood (e.g., a single session exploring the practical problems and stressors of pregnancy, birth, and caring for an infant, and the effects these events may have on marital quality). At these times, generalization of skills to new content areas may be important and couples may be most receptive to interventions, as the perceived need for them may be high.

Summary

There is comparatively little data on how preparation programs affect long-term marital quality. Behaviorally based programs appear to result in improved sexual satisfaction, more positive communication skills, less dysfunctional communication, higher relationship satisfaction, and less marital violence in participants than in control couples in the long term. A fundamental and as yet largely unresolved issue is the type of couple that volunteers for and remains in such programs. Preliminary evidence suggests that these couples may not be at risk of marital problems, and in couples who are at risk, there is no clear evidence that marriage preparation courses are beneficial. However, these conclusions are based on lim-

ited evidence. Clearly, there is a need to replicate long-term outcomes of marriage preparation programs, and that is currently being addressed (e.g., the AUSSIE PREP program; Halford, Sanders, & Behrens, 1996).

☐ Towards More Empirically Informed Prevention Programs

Given the status of data on prevention efficacy, it is timely to consider how research might contribute to the improvement of prevention programs and their evaluation. Towards this end, we consider three issues. First, we evaluate the empirical foundations for current program content for the PREP program as a representative example of published behaviorally based prevention programs. Second, we evaluate the outcome measures used to evaluate prevention programs. Finally, we offer a broader perspective on prevention and outline how research on marriage can extend the boundaries of prevention programs and their evaluation.

Empirical Foundations of Program Content

It is widely assumed that communication problems and patterns of destructive arguing erode love, sexual attraction, friendship, trust, and commitment, and place couples at risk for significant marital distress (Stanley et al., 1995). Consequently, PREP focuses on four main areas (Markman et al., 1986), using good communication to address problem issues (Sessions 1, 2, and 3), expectations about relationships (Session 4), and sexual enhancement and prevention of problems (Session 5). Do empirical data support the emphasis placed on these variables?

Communication Skills

Good communication skills appear to be critical to long-term marital quality. Negative interactional behavior is now well established as a predictor of future marital problems. In a recent meta-analysis on 115 longitudinal studies on marital quality (Karney & Bradbury, 1995), negative behavior and negative reciprocity were strong predictors of decreases in marital quality over time (aggregate effect sizes between -.30 and -.42). Does such data justify the focus on doing all that we can to prevent negative behaviors from occurring? Aren't occasional arguments (even severe ones) present in most marriages? In fact, there is some evidence that it is not so much the frequency of negative behaviors that is related to marital quality, but the ratio of negative to positive behaviors that is important. Gottman's (1993) study suggests that negative affect is not necessarily dysfunctional. He reliably classified three types of stable couples (validators, volatiles, avoiders) and two types of unstable couples (hostile and hostile/detached), and the ratio of positive to negative affect observed during interaction discriminated stable from unstable couples. When discussing events of the day, and a pleasant topic, the ratio of positive to negative affect was nearly 5 to 1 for stable couples, and was less than 1 for unstable couples. For a conflict discussion, wives in the hostile group had a higher ratio of positive to negative affects than wives in the hostile/detached group.

An interesting finding was that different types of couples achieved a ratio of 5 to 1 by mixing different amounts of positive and negative affect. Volatile couples mixed a lot of positive with a lot of negative affect; validators mixed a moderate amount of each; and avoiders mixed a small amount of each. So, despite evidencing different overall frequencies of positive and negative affect, the ratio remained similar across different types of stable couples. Negativity appeared to be dysfunctional only when it was not balanced with about 5 times the positivity, and when there were high levels of complaining, criticizing, defensiveness, contempt, and disgust. This study is limited by its focus on predicting marital stability, rather than marital quality. It is well known that many stable marriages are not necessarily high in marital quality.

However, the findings are similar to two other studies that do examine marital satisfaction. In a study that tends to be overlooked by marital researchers, Howard and Dawes (1976) found that marital satisfaction was related to the arithmetic difference between rates of sexual intercourse and arguments. In a similar vein, Veroff, Sutherland, Chadha, and Ortega (1993) found in conflicting interactions in mutual storytelling that the ratio of husbands' and wives' positive and negative responses were significantly related to marital strength. In neither study were the individual measures alone significantly related to marital satisfaction.

Behavioral analyses of marriage traditionally view the validating couple as ideal, with therapists attempting to increase empathic listening and we-ness while attempting to minimize combativeness and avoidance. The notion that a distressed couple confronted with a problem should empathically listen, summarize their spouse's statements, generate solutions, and negotiate a compromise, has seemed curious to many critics of behavior therapy. Do happy couples do this? Gottman's (1993) data suggest that some couples do, but that for other stable couples, avoidance may be functional.

In summary, a focus on negative communication patterns appears justified. However, there is some evidence that it is the ratio of positive to

negative behaviors that determines marital stability and satisfaction, as well as certain specific dysfunctional behaviors. However, some behaviors previously thought of as negative are not necessarily dysfunctional and consequently may not need to be prevented from occurring. Interestingly, prevention programs have placed much more weight on preventing negative behaviors, rather than placing equal emphasis on fostering the development of positive behaviors.

Expectations

PREP contains interventions designed to alter irrational relationship beliefs and destructive attributions that are commonly associated with marital distress (e.g., Eidelson & Epstein, 1982; Fincham, 1994). In particular, PREP encourages participants to attribute problems to lack of communication skills rather than to intrinsic characteristics of the partner. In the delivery of expectation-related interventions, the focus remains on communication. Expectations are presumed to have negative relationship effects because they are not expressed clearly and not understood adequately. Differences in expectations are also raised in order to practice communication skills on emotionally charged issues. What evidence is there that good communication skills can be used to circumvent dysfunctional differences in expectations?

Therapy outcome studies suggest that expectations are sensitive to behavioral marital therapy techniques which do not address expectations as the primary intervention target. However, adding cognitive interventions to standard behavioral marital therapy does not appear to improve marital therapy outcome (Baucom & Lester, 1986; Baucom, Sayers, & Sher, 1990). It is therefore possible that changes in expectations may not be related to later prevention outcome. A longitudinal study supports this view, as unrealistic relationship beliefs did not predict satisfaction 12 months later (Fincham & Bradbury, 1987). In contrast, spousal attributions predict later satisfaction in newlywed husbands (over 12 months, Fincham, Beach, Harold, & Osborne, 1997) and in established marriages (over 12 and 18 months, Fincham & Bradbury, 1987, 1993; Fincham, Harold, Osborne, & Gano-Phillips, 1996). Whether the attention to expectations produces attributional changes important to the outcome of prevention programs is unknown. Data are needed to determine whether attention to expectations is critical to the efficacy of prevention programs.

Sex

Because couples often receive little guidance on sex, PREP includes education about the sexual response and associated gender differences, sexual dysfunction, birth control, and sensate-focusing exercises. These interventions appear to improve knowledge of human sexual functioning and decrease misconceptions. As with expectations, however, the view is taken that sexual problems within marriage are probably best resolved through good communication, and hence the principles learned in earlier sessions on communication are assumed to be critical to the prevention of sex-related problems. Interestingly, in their analysis of longitudinal studies on marital quality, Karney and Bradbury (1995) found insufficient longitudinal data available on sex to warrant its inclusion in their meta-analysis. The importance of the sexual relationship as a predictor of marital quality remains unresolved.

☐ Outcome Measures Used to Assess Program Efficacy

We next turn to the measures used to evaluate outcome and ask whether they measure adequately the constructs targeted in behaviorally based programs. In order to address this question, we need to identify what constitutes a favorable outcome, an issue that has not received the attention it deserves in the prevention literature. Is a favorable outcome one in which a couple remain together? Is it one where both spouses report high marital quality? These two questions are frequently assessed in outcome studies, and we therefore begin our discussion by examining the constructs of marital stability and marital quality.

Marital Stability

Although marital stability has long been used as an outcome measure, it is not without problems. Imagine a couple who experience a couple of years of satisfied marriage, but who thereafter experience increasing marital distress, negotiate a relatively conflict-free separation, and experience improved psychological and physical health as a consequence. If this couple participated in a marital preparation program would the program be a failure for them? After all, it may have been responsible for their 2 years of happy marriage. In contrast, imagine a couple who become distressed after a year but who remain together, experiencing low life satisfaction and physical and psychological health consequences. Is this couple an example of a successful outcome? Perhaps failure occurs when a couple remain together in the face of chronic marital distress that resists all reasonable attempts to be resolved. Clearly, marital stability is a central outcome measure, but it is not necessarily correlated with marital quality.

Marital Quality

The most widely used measures of marital quality are the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Marital Adjustment Test (MAT; Locke & Wallace, 1959). Markman and colleagues (1993), for example, report MAT data as the primary indicator of marital quality at 4- to 5-year follow-up. Marital quality in these measures is conceived of as unidimensional, ranging from the divorcing couple to the blissfully married couple. Spanier (1979) wrote:

> Marital quality, then, has been defined as a subjective evaluation of a married couple's relationship, with the range of evaluations constituting a continuum reflecting numerous characteristics of marital interaction and marital functioning. A couple can be placed on a continuum ranging from high to low quality rather than being considered fixed in a discreet category of high or low quality. (p. 290)

What do these measures tell us about longitudinal changes in marital quality? Unfortunately, not a lot, owing to conceptual and methodological problems associated with such measures. To illustrate, the measures contain a mixture of differentially weighted items, ranging from reports of specific behaviors that occur in marriage to evaluative inferences regarding the marriage as a whole. For example, on the MAT, items include ratings of disagreement on 8 issues (most, but not all, of which are scored from 0 to 5), and questions like "Do you ever wish you had not married?" (scored as 0, 1, 8, or 10 depending on responses). The inclusion of behavioral and subjective categories and the number and weighting of items used to assess each category varies across measures of marital quality, making it unclear what these tools actually measure. Consequently, such omnibus measures may be useful in identifying distressed and nondistressed couples but they do little to enlighten us as to the nature and critical components of marital quality.

Some researchers have questioned the assumption that marital quality is continuous and unidimensional (e.g., Beach & O'Leary, 1985; Fincham, Beach, & Kemp-Fincham, 1997; Snyder, 1981), as several phenomena are difficult to explain from this perspective. For example, couples with the same score on the DAS may be ambivalent (both very positive and very negative), or indifferent (neither positive or negative) about the marriage. Also, some couples show high variability in their daily satisfaction with the marriage, whereas others do not. Conventional measures of marital quality fail to capture ambivalence, indifference, and variability in marital quality.

Marital theorists have argued that conceptual understanding of marital quality is enhanced by reconceptualizing it as multidimensional. For example, Fincham, Beach, and Kemp-Fincham (1997) advocate a bidimensional approach in which marital quality is conceived of in terms of positive and negative components and have offered data to show that these components provide nonredundant information about relationship quality (e.g., Fincham, Beach, & Kemp-Fincham, 1997; Fincham & Linfield, 1997). In a similar vein, Snyder (1981) developed the Marital Satisfaction Inventory, a psychometrically sophisticated instrument that offers a profile of marital quality much like the Minnesota Multiphasic Personality Inventory (MMPI) offers a profile of individual functioning and, like the MMPI, offers actuarial data to assist in its interpretation. Although promising for understanding marital quality, such tools have been underutilized in comparison to the DAS or the MAT.

Viewing marital quality as multidimensional does fit with findings regarding the orthogonality of positive and negative dimensions of marital interactions and quality over the lifespan. Using cross-sectional studies of age cohorts, researchers have compared the moment-by-moment interactions of younger and older couples. Couples have been found to vary in the overall level of interactional positivity and negativity as years of marriage increase. Two studies have found that behavioral negativity tends to decrease as couples age together (Guilford & Bengston, 1979; Levenson, Carstenson, & Gottman, 1994). Interestingly, Guilford and Bengston found that negative sentiment may act independently of global relationship satisfaction in older, happily married couples. Levenson, Carstensen, and Gottman (1994) found higher reports of positive affect during marital interaction in older couples than in younger couples, and older couples found discussion of difficult issues less physiologically arousing, even after controlling for overall greater positivity.

The degree to which the findings of cross-sectional studies represent how relationships develop longitudinally is questionable. Given high divorce rates, it is likely that a highly select sample of couples will still be married in older age. Also, differences in the correlates of satisfaction in older couples may reflect historical factors (for example, cohort effects such as the exposure of many older couples to the Second World War may have systematically changed aspects of marriage). Longitudinal studies are the most effective way of avoiding these methodological problems. Nevertheless, these results provide tentative evidence that positive and negative dimensions of marital quality are likely to exist independently, and current unidimensional measures of marital quality commonly used in prevention research fail to capture the richness of changes in marital quality.

Demonstrating that prevention programs have a systematic effect on marital quality and stability is, however, a rather inadequate test of the hypothesis that a focus on preventing dysfunctional communication skills

is efficacious. It is critical that changes in communication skills also be demonstrated. In the ensuing paragraphs, we therefore narrow our focus to the measurement of communication patterns.

Assessing Communication

Because destructive patterns of communication are thought to be central to understanding declines in marital quality, empirically evaluated programs have included measures of constructive and destructive interactional behaviors in outcome assessment batteries. Typically, these are self-report measures, such as the Conflict Tactics Scale (CTS; Straus, 1979), which measures reasoning, verbal aggression, and physical violence. Van Widenfelt and colleagues (1996) also used the conflict subscale of the Family Environment Scale (FES; Moos & Moos, 1983), which consists of 11 items such as "We fight a lot in our family" and "Family members sometimes hit each other."

Self-report measures, however, have several limitations. Interspousal agreement is often low, and a range of biases are likely to apply, particularly in questionnaires that measure the occurrence of violent and aggressive behavior. Another method extensively used in the marital literature is to observe couples interacting.

It is therefore noteworthy that some program evaluations include observation of communication between spouses. Typically, couples complete a 10- to 15-minute structured discussion task that is videotaped and coded for specific microbehaviors or interactional processes. An extensive body of research shows that such methods reliably discriminate distressed from nondistressed couples, that couples are unable to "turn off" certain domains of behavioral responses, that couples report these interactions as representative of their typical interactions, and that observed verbal and nonverbal behavior predicts future marital quality (for a review, see Weiss & Heyman, 1990).

Coding systems vary widely in the types of coding units that are used, the level of inference used, and the relative independence of behavioral codes (Floyd, 1989). In the prevention area, macroanalytic (or "molar") behavioral coding systems have been used. These molar systems are characterized by large coding units, nonindependent dimensions of behavior, and higher levels of inference required by the coder, when compared to microanalytic systems. The primary advantage of these coding systems is that they reduce coding time. A disadvantage is that, unlike microanalytic systems, which use small coding units, sequential analysis of chains of behavioral responses cannot be derived. For example, coding of turns at speaking facilitates the examination of the impact of each communication on the partner using sequential analysis techniques. These sorts of statistical procedures cannot be applied to data coded through molar coding systems (for an excellent discussion of macro- versus microcoding, see Bell & Bell, 1989; Floyd, 1989).

Markman and colleagues (1993) used the Interactional Dimensions Coding System (IDCS; Julien, Markman, & Lindahl, 1989) to evaluate PREP. The IDCS assesses five negative dimensions (conflict, dominance, withdrawal, denial, negative affect), and four positive dimensions (communication skills, support-validation, problem solving, positive affect). Two dyadic dimensions are also included, negative and positive escalation. For the nine individual dimensions, the coding unit is obtained by dividing the interaction into three equal segments of thought units (e.g., verbal phrases grammatically separated by conjunctions, question marks, or periods), or by equal overall discussion time intervals. For the two dyadic dimensions, the whole interaction is the coding unit. Observers view the relevant section of the interaction and make a single global rating for each partner, taking into account affect and content cues as required by coding definitions.

Julien et al. (1989) found that IDCS negative and positive escalation dimensions were modest predictors of marital satisfaction at 4 years postassessment, and IDCS codes were significantly correlated with males' reports of marital quality. Molar coding systems are in their early stages of development, and further refinement of behavioral codes to increase inter-rater agreement, and validation using samples more variable in marital distress is needed. But even if programs are shown to reliably reduce negative communication patterns and successfully help couples to anticipate stressful events, is this necessary and sufficient to ensure high, long-term marital quality? Although the answer to this question is critical to understanding communication-based prevention programs, existing research also points to ways in which current prevention programs can be broadened.

☐ A Broader Perspective on Marriage Preparation Programs

In this section we argue that the current content of empirically evaluated marriage preparation programs and the criteria used to assess their outcome are unnecessarily limited. Existing knowledge of the nature and development of high-quality marriage suggests two broad areas for improvement. First, current prevention programs should be expanded to include additional factors known to affect marital quality. Second, outcome criteria need to be expanded to more fully capture marital health.

Content

Several lines of evidence suggest that the limited focus of current programs is insufficient to produce high, long-term marital quality. First, as already noted, available evidence on the intermediate-term effect of preparation programs is mixed. There is also the need to demonstrate that prevention has a replicable effect with homogeneous groups. Second, removing destructive communication patterns in couples who are maritally distressed does not work particularly well in producing high marital quality.

Behavioral marital therapy (BMT), which has traditionally focused on extinguishing destructive interactional patterns, has limited long-term efficacy. Numerous empirical reviews have evaluated over 20 controlled trials of BMT containing combinations of behavior exchange, communication, and problem solving training (e.g., Hahlweg & Markman, 1988; Jacobson & Addis, 1993). BMT is clearly more effective than either no treatment or nondirective counseling (Hahlweg & Markman, 1988). However, a significant proportion of couples (25% to 30%) do not evidence any improvement at the end of therapy, and only about half are no longer maritally distressed (Halford, Sanders, & Behrens, 1993; Jacobson et al., 1984). For those couples that do show improvements in marital satisfaction, there is substantial relapse, with less than half of presenting couples maintaining clinically significant gains longer than 2 years after therapy (Jacobson, 1989; Snyder, Willis, & Grady-Fletcher, 1991). Behavioral marital interventions designed to rectify or prevent such problems have modest effects in producing long-term high marital quality.

There are, of course, some limitations when we draw parallels between removing negatives in distressed couples and preventing negatives in happy couples. For example, in distressed couples there is the possibility that relatively immutable factors, such as memories of physical abuse, may result in sustained marital distress even if dysfunctional communication patterns are extinguished. Nevertheless, there is some evidence that negative communication patterns alone do not determine marital quality.

The tertiary intervention literature suggests that there are likely to be a variety of necessary characteristics and skills associated with high marital quality, including good communication skills, ability to successfully and mutually anticipate and resolve problem issues, anticipation of and preparation for future marital stressors, and maintaining a high ratio of positive to negative interactional behaviors. There is not convincing evidence to suggest that these characteristics are sufficient to produce high marital quality. A similar argument may hold for behaviorally based prevention programs. Perhaps current intervention foci are not sufficient to maintain marital quality.

Longitudinal research on marriage can be used to identify other potentially important areas for intervention. Karney and Bradbury (1995) consolidate the huge variety of individual and interpersonal research findings in this area by proposing a vulnerability-stress-adaptation framework which they believe best fits with what we currently know about the longitudinal development of marital satisfaction and stability. Interactive processes are viewed in the context of risk factors or vulnerabilities that couples bring to their relationship, stressful events that occur during marriage, and the ways that couples adapt to stressful events.

Enduring Vulnerabilities

Karney and Bradbury (1995) found considerable evidence that individual characteristics brought into a relationship have a strong impact on marital quality and stability. For example, neurotic personality traits and unhappy childhood experiences are predictive of marital quality and stability. Parental divorce also predicts marital stability and, to a lesser extent, marital quality. With the exception of Van Widenfelt et al.'s PREP program (which included a session on parental divorce issues), these personality traits and historical factors are not clearly addressed in existing behaviorally based prevention programs.

What sorts of interventions might be included in prevention programs to address enduring vulnerabilities? The answer to this question depends, in part, on where in the developmental stage of a relationship the prevention program is initiated. For example, if prevention programs begin before the relationship develops (for example, as part of school curricula), then interventions which address issues that place individuals at risk (for example, parental divorce, high conflict in the home), current expectations regarding marriage (myths about marriage, e.g., good marriages come naturally and effortlessly), processes in mate selection, norms regarding marital relationships, and danger signs for marital distress (for example, dating violence, sexual coercion, heavy alcohol consumption) may be efficacious.

Positive Interactional Behavior

While negative behavior is clearly a critical variable in marital outcomes, there is considerable evidence that positive interactional behaviors are important determinants of marital quality and stability (Karney & Bradbury, 1995). Despite the discriminant and predictive validity of positive interactional behavior, behaviorally based marital intervention and prevention programs have placed relatively little emphasis on addressing positive behaviors in couples.

The emphasis appears to be shifting as marital theorists begin to focus on such positive dimensions as tolerance and acceptance (Hayes, Jacobson, Follete, & Dougher, 1994), and preliminary evidence suggests that intimacy enhancement interventions are as effective as behavioral marital interventions (Johnson & Greenberg, 1985). The discriminant and predictive validity of positive dimensions of marital interactions, combined with the effectiveness of intimacy enhancement interventions for couples who are distressed, suggests that the content of prevention programs may be enhanced with the addition of interventions which aim to boost and maintain positive dimensions of marital quality.

What does empirical data offer regarding the positive dimensions of marital quality and interactions that could be targeted in prevention programs? Compared to distressed couples, short interactions on problem issues in nondistressed couples show more positive behaviors, such as agreement (Margolin & Wampold, 1981; Revensdorf, Hahlweg, Schindler, & Vogel, 1984), empathy (Birchler, Clopton, & Adams, 1984), pinpointing and verbalizing problems in a noncritical way (Margolin & Wampold, 1981), and generation of solutions to problems (Birchler et al., 1984; Floyd, O'Farrell, & Goldberg, 1987; Margolin, Burman, & John, 1989). It is likely that rewarding and intimate verbal interactions and activities are critical components of happy couple relationships. Happy couples report that spending positive shared time together is a major reason for the rewarding nature of their relationship (Osgarby & Halford, 1996), and partners in happy couples also actively share and build on experiences communicated by their mate (Osgarby & Halford).

The social psychological literature has much to contribute here also. Such constructs as love, perceptual idealization, and commitment have received attention in the social psychological literature, but have yet to be applied in the marital therapy literature. These are important self-reported characteristics of happy couples married 20 years or more (Fenell, 1993), and it is often the waning of these qualities that are the primary presenting problem of distressed couples (Margolin, 1983). Monitoring changes in these qualities in responders and nonresponders to prevention would be a good place to start in determining their importance for sustained marital quality.

Ironically, the marital literature offers little when it comes to models of marital health. For the most part, it appears that marital health is assumed to be the opposite of marital dysfunction. Kelly and Fincham (in press) have therefore attempted to provide a more complete account of marital health.

Stress

Behaviorally oriented marriage preparation programs have a focus on anticipating and preparing for future problems, and this focus is supported by several empirical findings. First, stressful events do impact negatively on marital quality. For example, unemployment (e.g., Aubry, Tefft, & Kingsbury, 1990) and work stress (e.g., Halford, Gravestock, Lowe, & Scheldt, 1992) are common stressors associated with decreases in marital quality and increases in negative interactional behavior. Developmental transitions such as parenthood are often associated with stress and declines in marital satisfaction (e.g., Belsky & Pensky, 1988). Finally, some couples experience stress outside the norm of marital experience, such as infertility, having a child with a physical or intellectual handicap, or illness or injury that may profoundly influence marital quality (Revenson, 1994). The need to begin documenting stressors in examining the outcome of marital preparation programs appears self-evident.

Adaptation

It also appears that the spouse is the most significant source of social support available to most married people, especially men, when stressful events occur. The spouse is frequently the first person from whom support is sought during crises (e.g., Beach, Martin, Blum, & Roman, 1993), and support from other sources cannot compensate for a lack of intimate or marital support (Coyne & DeLongis, 1986; for a review, see Cutrona, 1996).

Spousal support can reduce the impact of individual problems and stressors. In the alcohol area, for example, Moos and colleagues (e.g., Billings & Moos, 1981, 1983) found that family support (reflected by such measures as cohesiveness and lack of conflict), assessed following discharge from treatment, is predictive of both short-term (6 months) and long-term (2 years) treatment outcome. Rosenberg (1983) also found that recovered alcoholics reported higher levels of support from family and friends and more people that they could turn to for assistance than relapsed alcoholics. Booth, Russell, Soucek, and Laughlin (1992), while controlling for the history of prior treatment failure, found that reassurance of worth from family and friends significantly predicted the time to readmission in participants in an inpatient alcohol treatment program.

Current prevention programs address the issue of dealing with stressful events through the development of communication skills. However, being able to resolve problems using effective communication skills is only one aspect of handling stressful events. A related adaptive aspect of marital quality is the provision of effective spousal support. While mutually supportive partners probably show good communication, it is not necessarily true that a couple who show good communication skills, particularly in a structured observation session, are high in their support of each other. To make this point, we explore a definition of social support within marriage.

The term "social support" has been used to refer to the mechanisms by which interpersonal relationships buffer one against a stressful environment (Sells, 1970). While the topography of "supportive" behaviors is vast, a recent theoretical analysis analyzed the forms and functions of social support that assist in coping with specific types of stressors (Cutrona & Russell, 1990). On the basis of Weiss's (1974) theory of social provisions, Cutrona and Russell conceptualized two basic forms of social support within marriage: assistance-related social provision (including guidance, for example, giving the partner in need advice and or information, and reliable alliance, where the partner of the spouse in need can be depended on for tangible assistance if required) and nonassistance-related social support (including reassurance of worth or feeling esteemed or valued by others, opportunity for nurturance or providing assistance to others, attachment or a strong emotional bond with at least one other person, and social integration or having other people who share interests).

This brief examination of the theoretical components of social support leads to two observations. First, the behavioral element of social support is not fully addressed by communication-oriented interventions. Providing problem-focused coping strategies aimed at managing or eliminating the source of stress (such as providing information about coping options, planning coping strategies, providing instrumental assistance) as well as providing emotional support (such as providing opportunities to debrief, responding with unconditional regard to distress, and physical affection) are all potential examples of supportive acts within the marital context (Revenson, 1994). It appears that only some of these behavioral elements receive attention in current prevention programs. An essential element of social support is the sense of being supported, or "perceived support" (Cutrona, Suhr, & MacFarlane, 1990). This is not well captured in purely behavioral analyses of social support (Cutrona et al., 1990; Vinokur, Schul, & Caplan, 1987). Fincham and Bradbury (1990) argue that the reason inferred for a partner behavior is likely to be a major factor in determining whether it is perceived as supportive. For example, if a spouse in need perceives a partner's positive behavior as something that was involuntary, unlikely to occur again, and selfishly motivated, perceived support may be low or absent. Conversely, if the same behavior was perceived as freely and unselfishly performed, perceived support may be high. It is reasonable to hypothesize that perceived support (i.e., behavior independently coded as supportive, as well as attributions about the behavior) is likely to covary with marital satisfaction and facilitate successful adaptation to stress.

Finally, it is worth noting that a couples' capacity to provide support in the event of stress may not be readily evident until stress arises. For example, marital satisfaction may be high, but partners' resources for coping with stress and providing support may be poor when significant stress occurs. This observation serves to underscore our earlier emphasis on the need to assess stressors in research on the prevention of marital distress.

Outcome Assessment

Prevention research fails to capture the wider definition of spousal support outlined above. Observed behavior is necessarily limited in what it can tell us about social support, given that the construct includes intrapersonal elements such as cognition and emotion. Also, discussion tasks used in prevention research are not conducive to the occurrence of partner support behaviors. Recent observational studies have begun to investigate couples discussing personal issues or problems that are not associated with marital conflict (e.g., Cutrona & Suhr, 1994). Ongoing research by Bradbury and colleagues has spouses make ratings of the anticipated levels of partner support before a videotaped discussion, and after the discussion spouses make a second rating of how supported they felt during the discussion. Such a task has the potential to document more fully the various elements of social support.

Outcome assessment also needs to be informed by research on the interaction of marital and individual well-being. There is growing evidence that a functional and healthy marital relationship is one that contributes to individual well-being for both partners. In contrast, an unhealthy relationship is one that detracts from or impedes individual well-being in one or both partners. It has been argued that individual well-being is an important index of marital quality that, until the present, has been underutilized in prevention research.

As regards psychological health, a large body of research links marital quality to psychopathology (Gotlib & McCabe, 1990). For example, depressive symptoms and marital quality are strongly related, with longitudinal studies suggesting that marital quality and interactional behavior may have a causal role in the etiology and maintenance of depressive symptoms (for reviews, see Beach, Sandeen, & O'Leary, 1990; Beach, Smith, & Fincham, 1994; Gotlib & Hammen, 1992). For example, Beach and colleagues, using a randomly recruited community sample of married women, found that marital satisfaction predicted depressive symptomatology 1 year later (Beach et al., 1995). However, Fincham, Beach, Harold, and Osborne (1997) found an interesting sex difference, in that marital quality predicted depressive symptoms 18 months later only for women, whereas depressive symptoms predicted later marital quality for men.

There is also evidence that marital quality may be associated with prolonged and dependent use of alcohol. People presenting for marital therapy report high levels of substance abuse (Halford & Osgarby, 1993), and people presenting for alcohol dependency treatment report high levels of marital distress (Blankfield & Maritz, 1990). Marital distress is often reported as a precipitant of problem drinking (Maisto, O'Farrell, Connors, McKay, & Pelcovits, 1988), and is associated with increased likelihood of relapse in recently treated alcohol-dependent women (Haver, 1986).

Despite such research we still know relatively little about how marital distress and mental health problems evolve over time. Prevention research could potentially address this lacuna by using measures of mental health in outcome evaluations of prevention programs. In any event, the inclusion of such measures is appropriate to gain a more complete picture of outcome efficacy.

As regards physical health, there is also growing evidence that marital quality influences partner outcomes, either directly or through the mediation of psychological or behavioral processes (Burman & Margolin, 1992). One mechanism by which marital quality impacts on health is through persistent alterations to cardiovascular and endocrine functioning (O'Dorisio, Wood, & O'Dorisio, 1985; Pert, Ruff, Weber, & Herkenham, 1985). Individuals with consistently more pronounced, frequent, or enduring increases in blood pressure or heart rate in response to stressors (e.g., marital discord) are more likely to develop cardiovascular diseases (Brown & Smith, 1992).

What evidence is there that marital quality is associated with deleterious biological responses and the subsequent development of illness? Kiecolt-Glaser and colleagues found a positive correlation between marital distress, conflict and marital termination, and biological indices of stress and physical health problems. For example, Kiecolt-Glaser et al. (1987) examined the association of marital quality (poor, high, or separated or divorced) with physiological indices of stress and psychological functioning among women. Poorer marital quality was associated with greater depression and a poorer response on measures of immune function. Women who had been separated for a year or less had poorer immune functioning than their matched married counterparts. In their most recent study, Kiecolt-Glaser and colleagues showed a significant positive association between conflict behavior and stress-responsive hormones in women (Kiecolt-Glaser et al., 1996). They also demonstrated that these elevations in stress-responsive hormones were maintained for several hours longer than the usual half-life of these hormones. Such findings suggest that repeated marital conflict may result in sustained elevations in stress-responsive hormones.

Other studies give us a clearer picture of exactly what sorts of marital interactions are associated with elevations in biological indices of ill health. Brown and Smith (1992) examined the effects of exerting social influence or control within marital interactions on cardiovascular response. This study found that, compared to female partners, male partners attempting to influence or persuade their wives displayed higher systolic blood pressure before and during the interaction. These physiological effects were associated with increases in anger and a more hostile interpersonal style. Female partners who engaged in social control behaviors did not show these elevations in systolic blood pressure.

In a related study that used far more sophisticated measures of marital conflict, expression, and physiological stress responses, Ewart, Taylor, Kraemer, and Agras (1991) measured blood pressure changes in maritally distressed hypertensive patients while they attempted to resolve a disagreement with their spouse. Blood pressure increased dramatically during hostile exchanges but was little affected by expressions of affection or support. A gender effect was also observed. In female partners, blood pressure changes were related to the emotional quality of dyadic exchanges and were correlated with marital satisfaction. For male partners, blood pressure increased when speech rate increased and the male partner dominated the discussion. This gender effect of "nasty versus nice" interactional behavior on blood pressure has been replicated (Kiecolt-Glaser, et al., 1993).

An important point regarding marital interaction and its effect on physiological indicators of stress and health outcomes is that arousal and stress responses are unlikely to be unidimensional. Different negative emotions may produce different patterns of physiological arousal. For example, Ekman, Levenson, and Friesen (1983) found that facial configurations associated with different negative emotions produce different patterns of autonomic nervous system (ANS) activity. ANS activity is likely to vary according to the type of emotive response (anxiety, anger, depression), physical activity, and different perceptual and cognitive states (Gottman & Levenson, 1986).

Also, there may be systematic differences in how marital conflict affects men and women physiologically. Gottman and Levenson (1988) argue that men experience greater physiological arousal during marital conflict than women and that men are slower to return to baseline after conflict. However, Kiecolt-Glaser and colleagues found that women showed more physiological arousal using indices of stress hormones (Kiecolt-Glaser et al., 1996). If we are to employ physiological indices of stress responses, more research is needed on gender differences in profiles of physiological arousal.

The likely variation in profiles of indices of emotion (i.e., physiological responses to different types of emotions, gender differences in physiological

indices) makes it advisable to employ markers from a range of domains. Unfortunately, this makes measurement of physiological indices impractical for most researchers with limited resources. In the face of limited resources, maximum heart rate may be the best dependent measure of physiological arousal, given that this measure was found to be the best physiological predictor of marital distress (Levenson & Gottman, 1983, 1985), and is also significantly higher in maritally distressed couples (Gottman & Levenson, 1992). Clearly, the links among marital quality, interactional behavior, physiological arousal, immune functioning, and the development of physical health problems are in need of replication with larger samples across different laboratories.

The research on marital quality and physical well-being points to some exciting areas for expansion of outcome evaluations in prevention research. While biological indices are no doubt expensive and difficult to implement, longitudinal evaluations of prevention programs that incorporate such measures would provide additional data on the public health significance of prevention programs.

Summary

Our analysis suggests that the focus on adaptive communication patterns in marital preparation programs needs to be expanded to include attention to factors associated with long-term marital outcomes (e.g., what spouses bring to the relationship; Karney & Bradbury, 1995) as well as factors identified as important for marital health (e.g., positive behaviors, see Kelly & Fincham, in press). In addition, measuring psychological and physical health and combining these measures with biological indices of stress, such as blood pressure and stress-related hormones, would provide a more complete picture of the public health significance of prevention programs.

☐ Conclusions

The goal of this chapter was to explore how research can better inform marital prevention programs. Towards this end, we evaluated the efficacy of current programs and the empirical foundations for the content they cover. The attention given to communication skills in these programs has strong empirical support, but this limited focus may be insufficient to sustain marital quality over time. Until we conduct longer term studies of prevention programs that control for risk of marital distress, the issue of whether a communication skills focus is enough will remain unresolved.

In addition, we pointed to the need to identify the mechanisms that mediate intervention outcomes if we are to maximize program impact.

We also explored the broader marital literature for factors other than those already incorporated into prevention programs that may have an impact on marital quality. Drawing on Karney and Bradbury's (1995) meta-analysis, we reviewed the importance of vulnerabilities, stressors, and adaptive processes in enhancing prevention efforts. Although good communication may do much to resolve individual differences and facilitate adaptation to stress, in some couples this may be treating behavioral manifestations of underlying individual characteristics that are resistant to change. Interventions addressing these areas are likely to enhance the efficacy of prevention programs.

Finally, our analysis of the outcome measures commonly used in prevention research (and indeed in much therapy research as well) showed that they are unnecessarily limited. Current outcome measures focus on marital stability, marital quality, observed communication, and self-reports of aggression and violent behavior. These outcome measures are theoretically justified, although in the case of marital quality, we noted several conceptual inadequacies in conventional measures of marital quality. We argued that outcome measures could profitably be expanded to include positive and negative dimensions of marital quality, spousal support, and measures of psychological and physical well-being.

Our analysis of the role of research in prevention efforts is illustrative rather than exhaustive. However, we hope to have convinced you that the contribution of research is not limited to evaluating the efficacy of prevention programs. Basic research on marriage can inform virtually every aspect of our prevention efforts. However, if it is to do so, we need to pay attention to developments in research and be prepared to revise even our most cherished beliefs and practices relating to the prevention of marital problems.

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