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Marital Decision Making Scale: Psychometric Properties

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MARITAL DECISION MAKING SCALE:

PSYCHOMETRIC PROPERTIES

by

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ABSTRACT

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The psychometric properties of a revised version of the Marital Decision Making Scale (MDMS) were evaluated in this investigation. Sixty-eight couples served as participants. Distressed couples (n=34) were recruited from a community-based outpatient mental health clinic where they were seeking conjoint therapy for relationship problems; demographically matched nondistressed couples (n=34) were recruited from the community through a local survey research firm. The MDMS showed high internal consistency, test-retest reliability, interjudge agreement, and convergent and discriminant validity. A second independent sample of 60 couples (30 distressed couples and 30 nondistressed couples) was also recruited to cross-validate the results found with the first sample. Using the classification equation derived from the data for the first sample, the MDMS was found to reliably discriminate between distressed and nondistressed couples with this second sample. Potential clinical utility of the MDMS is reviewed.

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INTRODUCTION

Marital decision making has been an area of interest to both clinicians and researchers examining factors associated with dyadic adjustment (for a review, see Gray-Little & Burks, 1983). Most marital and family investigators agree that one of the most important aspects of family structure is the positions of power between the husband and the wife[1]. As defined by Blood and Wolfe (1960), power is the potential ability of one partner to influence the significant other's behavior and is manifested in the ability to make decisions within the context of the family. The process by which power is distributed, and therefore decisions are made, is not only a reflection of the roles individuals assume in the marriage, but is also a major factor in determining other aspects of their relationships.

From a clinical perspective, the assessment of the marital decision making structure has many potential uses. For example, interventions employed in Behavioral Couples Therapy (BCT) and Cognitive Behavioral Marital Therapy (CBMT) often emphasize negotiation skills and problem solving strategies that revolve around methods partners use to make decisions within the context of their marital relationship (e.g., Jacobson & Christensen, 1996). An instrument that assesses marital decision making would enable a BCT therapist to identify specific areas of disagreement, thus allowing

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This thesis has been written according to the specific specifications and guidelines published by the American Psychological Association. (1994). Publication manual of the American Psychological Association (4th ed.). Washington, DC: American Psychological Association.

[1] To simply discussion of dyadic relationships, the terms husbands and wives will be used throughout this text when discussing any individuals who are involved in intimate relationships (e.g., married couples and cohabiting couples).

the therapist to tailor problem-solving or negotiation skills training to the identified problem issues. Using such an assessment instrument to explore the discrepancies between who made the decision and how important it was to the respondent to make the decision can provide clinicians important information not only about the balance of power in the relationship, but also about the reasons underlying why the partners are distressed. For example, suppose a wife consistently reports that her husband makes the decisions in several areas; in addition, she wants to have more voice in these decisions. A treatment provider working with this couple could use a marital decision making instrument to evaluate who has the power in the relationship (the husband in this case) and help the wife negotiate a more desirable level of control in making the decisions, which may ultimately lead to more satisfaction for both partners in the marriage.

A common theme that is often presented by distressed couples concerns the balance of power and control in the marriage (e.g., who controls the finances, with whose friends to spend more time, where to go on vacation). Upon initial examination, it may appear that these areas are independent. However, these disagreements are usually driven by the same conflictual process, namely, an underlying power struggle. Recognition of this theme can be critical to the clinician when designing treatment interventions (e.g., Baucom, Epstein, & Rankin, 1995). A marital decision making instrument that could be administered to both spouses could facilitate the process of uncovering the manifestation of this underlying power struggle.

In addition to its clinical uses, marital decision making has important implications for research on dyadic adjustment. Numerous studies have shown a relationship between marital decision making style and satisfaction in the marriage (e.g., Centers, Raven, &

Rodrigues, 1971; Sczinovacz, 1978). However, the nature of this relationship seems to vary from study to study. In their review, Gray-Little and Burkes (1983) found that out of 12 studies conducted in the previous 2 decades, eight of them revealed that the highest level of marital satisfaction is associated with egalitarian decision making (e.g., a balance between husbands and wives with respect to decision making), two found highest satisfaction to be linked with husband-dominated decisions, and the remaining two found equivocal results.

Overview of Marital Decision Making Research

Investigators have been examining the process of marital decision making among intimate partners for nearly 4 decades. Perhaps the most influential and widely cited investigation in this area was the seminal study conducted by Blood and Wolfe (1960). Using a comparatively large sample of 909 women from the greater Detroit area, these investigators attempted to determine how final decisions were made in marital relationships with respect to eight areas they deemed important. These areas included: (a) husband's choice of job, (b) decision on a car, (c) whether to invest in life insurance, (d) where to go for vacation, (e) choice of house or apartment, (f) whether the wife should work, (g) who to use as a doctor, and (h) how to spend money for groceries. Because an exhaustive list of all the decisions that couple's make is unobtainable, Blood and Wolfe selected these eight because of their relative importance and because they are decisions that nearly all couples must make. The investigators measured the extent to which these decisions were made individually or jointly. The results provided evidence of a positive relationship between shared approaches to decision making (e.g., egalitarian decision styles) and dyadic adjustment.

In the hope of improving on the work of Blood and Wolfe (1960), Centers and colleagues (1971) conducted a methodologically similar study using a sample that included both men ($\underline{n}$ = 337) and women ($\underline{n}$ = 410). In addition to sampling both men and women, these authors were also concerned with providing a better representation of decisions not traditionally within the male domain. The results of this study replicated Blood and Wolfe's prior findings and also demonstrated congruency between the responses of husbands and wives.

Several researchers, who have been interested in the balance of control and power in dyadic relationships (e.g., Ball, Cowan, & Cowan, 1995; Frieze & McHugh,1992; Madden, 1987), have used the construct marital decision making to define marital power. For example, Madden was interested in the relationship between marital power and satisfaction. For this investigation, marital power was defined as both who makes decisions in the relationship and who performs the tasks. She assessed marital decision making by having subjects complete a questionnaire that included the eight decisions that were viewed by Blood and Wolfe (1960) to be important, 21 decisions proposed by two other authors, and several decisions found important in pilot testing. The results indicated that for both sexes only perceived control over tasks was positively correlated with satisfaction. Perceived decision control, reported decision making, or reported task performance did not significantly influence marital satisfaction.

Knowledge of the power structure and processes is fundamental to the understanding of dyadic relationships. Such knowledge may be of special relevance for understanding the processes in abusive relationships. In an attempt to uncover the decision making structure in violent marriages, Frieze and McHugh (1992) looked at the

relationship between marital decision making and influence strategies used by wives and husbands in violent and nonviolent marriages. Influence strategies were defined as techniques that a partner uses to persuade their significant other. Examples include evasion, verbal manipulation, asking, bargaining, etc. One hundred and thirty-seven battered women and a control group of 137 comparison wives were recruited for this investigation. The findings of this study indicated that women with violent husbands used more influence strategies; however, they had less overall power in terms of decision making than did women with nonviolent husbands. Further, the influence strategies to decision making were different for women in violent relationships than for women in nonviolent relationships.

Other recent work in the area of marital decision making has explored the interrelationship of marital decision making, personal adjustment, and marital satisfaction. For example, Lucas and Peterson (1991) hypothesized that personal adjustment and well-being may be associated with an individual's own sense of personal control within the marriage and his or her own degree of satisfaction with decision making in the couple. Specifically, these authors proposed that marital locus of control beliefs exert a moderating influence between marital decision making satisfaction and personal adjustment. To examine this relationship, 75 women from two church populations were recruited and administered four inventories: the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1940), the Adult Nowicki-Strickland Internal-External Control Scale (Nowicki & Duke, 1974), the Power-Type classification scale (Phillips, 1967), and the Marital Dyad Decision scale (Adams & Peterson, 1988). The results revealed personal adjustment of married women was associated with both an

and women in their sample (N = 747). However, the results of this inquiry are questionable because there were actually only 86 married couples; the rest of the participants were not married to someone included in the sample. In another investigation, Quarm (1981) used both husbands and wives as respondents and demonstrated that at the aggregate level, there are similar means or percentage distributions for husbands and wives; however, when a husband and wife within the same family are compared, there is a substantial and significant discrepancy in their responses

There has also been much concern over the reliability and validity of the instruments used to assess marital decision making. For example, Douglas and Wind (1978) investigated the extent to which husbands' and wives' responses were congruent. The results of their study indicated that discrepancies between husbands' and wives' responses were, in large part, an artifact of instrument measurement error. These investigators argued that the observed incongruency is associated with items that are open to differing interpretations by the respective partners. Further, they contend that many of the measures that have been used to assess marital decision making have relied on recall about decisions that occurred in the past or which may involve multiple decisions. These investigators suggest that future researchers in this area should be concerned with reducing errors arising from unreliable assessment instruments and developing less ambiguous questions.

To examine between-spouse discrepancies, most investigators have used the number of disagreements on self-report marital decision making scales as a measure. Quarm (1971) suggests several reasons why results found by this approach are difficult to interpret. First, the likelihood of between-spouse agreement is influenced by the variance

internal marital locus of control and with maintaining a desired level of influence over marital decision making.

Methodological and Psychometric Limitations

Despite advances in this line of research over the last several decades, there are two major limitations that have plagued many of the studies discussed thus far: (a) general methodological weaknesses, and (b) failure to establish the psychometric properties of the instruments used (Gray-Little & Burkes, 1983). Perhaps the most glaring methodological limitation in several of the investigations that have assessed marital decision making has been the samples used in the studies. For example, a number of investigations have relied on the responses of only one spouse, who is typically the wife (e.g., Blood & Wolfe, 1960; Lucas & Peterson, 1991). The assumption underlying the choice of only one spouse appears to be that because both spouses were reporting on the same reality, either spouse was sufficient to serve as a respondent. If different family members give identical responses, then either the wife, husband, or child can serve as the respondent; however, if there are incongruencies between responses, the family member serving as a respondent becomes critical. To assess whether the wives' responses were representative of the husbands' also, Safilios-Rothschild (1969) examined a cross-cultural sample of both husbands and wives. She found that in only 24% of the cases wives and husbands were in agreement. Thus, the responses of both spouses are needed to ascertain decision making styles in intimate dyadic relationships.

Later investigations sought to remedy this problem by recruiting both husbands and wives as participants. For example, Centers and colleagues (1971) included both men

of the items. Second, counting the number of disagreements does not distinguish between bias arising from the gender of the respondent and other types of measurement error (e.g., differences in perception or ideology). Quarm proposed that using a correlational approach (e.g., interrater agreement) would eliminate both of these problems.

Some researchers have examined correlations between spouses' responses. For example, Cromwell and Cromwell (1978) found between-spouse correlations of less than .40 for six of their decision making items. In 1978, Douglas and Wind reported between-spouse correlations ranging from .15 to .65 for decision making items. In an analysis of the Blood and Wolfe (1960) decision making scale, Davis (1971) found a between-spouse correlation of .15. As is evident from these studies, the between-spouse correlations are small in magnitude.

Many investigators have considered the problem of low correlations to be related to the perception or ideology of the respondents. For example, Safilios-Rothschild (1969) argued that each spouse has their own subjective reality and this causes the differences in responses. Still others contend that the low correlations are due to random measurement error. For example, Olson and Rabunsky (1972) suggest that incongruencies may arise from several sources, including: (a) question ambiguity, (b) difficulty in recalling decisions made in the past, (c) identifying who is actually responsible when mutual consultation or involvement occurs, or (d) differences between spouses in awareness and information regarding an authority area.

Quarm (1971) hypothesized that the low correlations between husbands' and wives' responses were due to random error measurement. To test this hypothesis, she

recruited a sample of 119 couples. She demonstrated that for certain areas of power, low between-spouse correlations result, in part, from random measurement error. By increasing the reliability of measures, she proposes that one can also increase the correlation between spouses. Quarm also made several recommendations for future research. She advocated that reliable measures of marital power can be created only by constructing multi-item measures and advised that both spouses be included in the assessment.

Other limitations of existing marital decision making inventories include the lack of comparability between instruments and scoring procedures. Of the 12 studies reviewed by Gray-Little and Burkes (1983), only 3 used identical scales. The other scales varied in the number and type of areas being studied. The scoring procedures for each of the scales also varied dramatically. For example, Szinovacz (1978) demonstrated that different results could be obtained using the same instrument when the scoring procedures changed.

Purpose of Present Investigation

Evidence from available empirical investigations indicate that the construct of marital decision making holds promise for improving our understanding of dyadic adjustment. Despite advances in this line of research over the last several decades, limitations such as general methodological weaknesses and failure to establish the psychometric properties of the instruments used has plagued this research (Gray-Little & Burkes, 1983). The present investigation addressed these limitations by examining the psychometric properties of a revised version of the Marital Decision Making Scale (MDMS; Beach & Tesser, 1993). This scale, which is based on the work of Stuart (1980,

1983), appeared to us to hold promise for being a valid and reliable measure of marital decision making.

The modified MDMS is a self-report inventory comprised of 22 items which assesses not only who makes the decision but also how important it is to the respondent to make that decision. Examples of items on the inventory include where to go on vacation and with whose friends to spend more time. Each item is scored along both dimensions (who makes the decision and how important it is to the respondent to make the decision) on a 5-point Likert scale. The respondent receives a summary score which is the sum of the differences between who makes the decision and how important it is to the respondent that he or she makes the decision on each item. Any item that receives a negative score is converted to a value of zero (0). Each couple also receives a summary score which is the average of the husband's and wife's score. The possible couple's score range is from 0-88 (Babel & Fals-Stewart, 1998). A complete version of the MDMS can be found in Appendix 1.

Two studies were performed. In Study 1, married couples who were either in a distressed or nondistressed relationship were recruited to serve as participants. Each couple was administered the MDMS, several dyadic adjustment scales, and a social desirability inventory. The participants returned two weeks later and were readministered the MDMS. Standard psychometric properties (i.e., reliability and validity) of the MDMS were then examined. Study 2 was performed to examine whether the results from the first study were sample specific. An independent sample of distressed and nondistressed couples were recruited for this investigation.

STUDY 1

Method

Participants

Sixty-eight couples served as participants for Study 1. Thirty-four distressed couples and a demographically matched sample of 34 nondistressed couples were recruited from the upstate New York area.

Measures

In addition to the MDMS, several other instruments were administered to all couples:

The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a commonly used relationship adjustment inventory. Scores on this scale range from 0 to 151 with higher scores indicating better relationship adjustment. This scale has good to excellent reliability and validity. As a total score, the DAS has excellent internal consistency, r_{α} = .94, and has been shown to have known-groups validity and concurrent validity (Spanier, 1976).

The Areas of Change Questionnaire (ACQ; Weiss, Hops, & Patterson, 1973) asks subjects to indicate on a 7-point scale how much change in their partner is desired for 34 relationship behaviors. A second part of this questionnaire asks respondents to indicate whether an increase, decrease, or no change at all would be pleasing to one's partner on the same items. Possible responses can vary from -3 (much less often) to 3 (much more often). A rating of 0 indicates that no change is desired. The scoring procedure, described by Weiss and Birchler (1975) as the most widely adapted scoring system for the inventory, takes into account the degree of agreement and disagreement between the

spouses about the desirability of each partner changing on each item. The sum of Agreements versus Disagreements was the index used for this study. The ACQ has been shown to reliably discriminate between distressed and nondistressed couples; 33 of the 34 items have been shown to distinguish between the two groups (Margolin, Talovic, & Weinstein, 1983).

The Response to Conflict Scale (RTC; Birchler & Fals-Stewart, 1994a), a 12-item scale, was used to look at maladaptive ways in which partners address conflict in their marriage. This scale asks partners to evaluate the frequent use of specific behaviors (e.g., yelling, leaving the scene) on an 8-point scale. Scores range from 0-192, with higher scores indicating more frequent use of maladaptive behaviors. This inventory has been demonstrated to have acceptable temporal stability (r_{tt} = .80) and internal consistency (r_{α} = .71) (Birchler & Fals-Stewart, 1994a).

The Martial Status Inventory (MSI; Weiss & Cerreto, 1980) is a 14-item scale which assesses thoughts, plans, and actions concerned with separation or divorce. Scores can range from 0 to 14, with higher scores indicating more steps toward relationship dissolution. The MSI is a Guttman-like scale and has been shown to have acceptable reproducibility (CR = .90) and scalability (CS = .87) (Weiss & Cerreto, 1980).

The Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960) is a measure of positive impression management. Scores range from 0 to 71 with higher scores indicating greater impression management. This inventory has been demonstrated to have acceptable internal consistency (r_{α} = .88) and temporal stability (r_{tt} = .89) (Crowne & Marlowe, 1960).

Procedure

Distressed couples (n=34) were recruited from a community-based outpatient mental health clinic where they were currently seeking conjoint therapy for relationship problems. A demographically matched sample of nondistressed couples (n=34) were recruited by a survey research firm and paid $10 for their participation. The survey firm was asked to contact potential participants in the county where the outpatient clinic was located, via random digit dialing, who were matched to the distressed couples on age, race/ethnicity, number of children, length of marriage, and education. To ascertain whether the couples recruited through the research firm were actually in nondistressed relationships, the DAS was administered to all of these couples. Only couples who were in nondistressed relationships were used in the data analysis. Only two of the recruited couples were found to be in distressed relationships, and they were not retained in the data analysis.

After receiving a verbal overview of the study, each partner signed consent forms indicating their willingness to participate in the investigation. The partners were then separately administered the self-report inventories. Well-trained research interviewers administered the inventories to all couples, and after each partner completed the questionnaires, the research interviewers conducted a debriefing concerning the hypothesis, purpose, and potential relevance to participants of the present research. All participants returned 2 weeks later. At this time, the couples were readministered the MDMS by the research interviewers.

Results

Sample characteristics

Table 1 presents the demographic characteristics of the participants in the two groups.

To determine if the two groups differed significantly on any of these characteristics, statistical comparisons were made using analysis of variance (for interval-level and ratio-level data) and chi-square tests (for categorical data). These analyses indicated the matching procedure was effective; the two groups did not differ significantly ($p<.05$) on any of the demographic variables on which these couples were matched. Means (SDs) of participants' scores on the self-report measures used in the investigation are presented in Table 2.

Reliability

The internal consistency of items contained in the MDMS was examined. Coefficient alpha, a measure of internal consistency, was $r_{\alpha} = .84$, $p<.001$ across all couples, which is acceptable (Anastasi, 1988).

In order to assess test-retest reliability, an intraclass correlation (r_{icc}) was used (Shrout & Fleiss, 1979). As opposed to providing a measure of association, such as a Pearson correlation, the r_{icc} provides a measure of both association and agreement of scores. Over a 2-week interval, the r_{icc} for the entire sample for the MDMS was .99, $p<.05$. Temporal stability was also examined for the distressed and nondistressed couples separately. The r_{icc}s for the distressed couples and for the nondistressed couples

Table 1

Study 1: Demographic Characteristics for Distressed Couples and Nondistressed Couples

Characteristic	Distressed Couples (n=38)	Nondistressed Couples (n=38)
Mean (SD)		
Husband's age	35.18 (9.71)	31.85 (9.31)
Wife's age	32.32 (9.20)	30.76 (9.42)
Husband's education	12.53 (1.54)	12.38 (1.18)
Wife's education	12.68 (1.30)	12.68 (1.41)
Length of Marriage	9.03 (7.67)	8.65 (9.05)
Number of Children	1.41 (1.28)	1.38 (1.35)
Number (%)		
Race--ethnic composition		
Husband		
White	24 (71)	26 (76)
African American	9 (26)	6 (18)
Hispanic	1 (3)	2 (6)
Wife		
White	26 (76)	27 (79)
African American	7 (21)	5 (15)
Hispanic	1 (3)	2 (6)

Table 2

Study 1: Means and Standard Deviations of Self-Report Measures by Group

Self-Report Measure	Group 1 Mean (SD)	Group 2 Mean (SD)
Husband		
MDMS (Time 1)	31.85 (17.18)	8.24 (6.64)
MDMS (Time 2)	30.91 (15.67)	8.82 (6.84)
MC-SDS	1.94 (2.04)	1.94 (1.59)
Wife		
MDMS (Time 1)	32.88 (16.34)	8.71 (5.34)
MDMS (Time 2)	32.03 (16.10)	8.26 (4.81)
MC-SDS	2.85 (1.62)	4.32 (1.92)
Couple		
MDMS (Time 1)	31.47 (15.76)	8.54 (5.57)
MDMS (Time 2)	31.56 (15.77)	8.59 (5.61)
DAS	73.74 (10.84)	129.53 (13.26)
MSI	4.60 (1.89)	.32 (.66)
RTC	137.24 (23.78)	20.06 (19.45)
ACQ	37.44 (7.43)	3.24 (1.94)

Note. MDMS (Time 1) = First administration of Marital Decision Making Scale; MDMS (Time 2) = Second administration of Marital Decision Making Scale following two week interval; MC-SDS = Marlowe-Crowne Social Desirability Scale; DAS = Dyadic Adjustment Scale; MSI = Marital Status Inventory; RTC = Response to Conflict Scale; ACQ = Areas of Change Questionnaire.

were .99, $p < .05$, and .99, $p < .05$, respectively. Thus, temporal stability was excellent (Anastasi, 1988)

Interjudge agreement, the degree to which husbands and wives agreed on marital decision making, was also examined using r_{icc}s. For the entire sample, $r_{icc} = .97$, $p < .05$. For the distressed couples, $r_{icc} = .96$, $p < .05$; for non-distressed couples, $r_{icc} = .82$, $p < .05$. Thus, interjudge agreement was found to be excellent (Anastasi, 1988).

Convergent and Discriminant Validity

Construct validity was computed using zero-order correlations. To demonstrate construct validity, both convergent and discriminant validity were examined. Convergent validity is demonstrated when the instrument under investigation correlates highly with other variables with which it should theoretically correlate; whereas, discriminant validity is shown when the instrument does not correlate significantly with variables from which it should differ (Anastasi, 1988).

To assess convergent validity, zero-order correlations were computed between the couple's score on the MDMS and the other measures of relationship adjustment. The resulting correlations are presented in Table 3. Moderately large correlations (all significant at $p < .05$ or less) were found between the MDMS and all of the four measures of relationship adjustment.

To assess discriminant validity, zero order correlations were computed between the MDMS and the M-C SDS for the sample of husbands and sample of wives. For husbands, the correlation between the M-C SDS and the MDMS was not significant, $r =$

Table 3

Convergent Validity

Relationship measures	Zero-order correlation
Dyadic Adjustment Scale	-.77*
Areas of Change Questionnaire	.78*
Marital Status Inventory	.60*
Response to Conflict Scale	.72*

* $p < .001$, with a Bonferroni correction.

-.07, ns. Although there was a significant correlation between the MDMS and the M-C SDS for wives, $r = -.275$, $p < .02$, this was still a relatively weak relationship.

Diagnostic Efficiency Statistics

Diagnostic efficiency statistics were calculated to determine how accurately the inventory could classify distressed and nondistressed couples. Using a cutoff score of 16.5, which was derived from a standard binary logistic regression[2], the diagnostic efficiency statistics that were calculated were specificity, sensitivity, positive predictive power (PPP), negative predictive power (NPP), and hit rate. The results from the standard binary logistic regression are presented in Table 4. Specificity is the probability that the MDMS classified the couples as nondistressed when they were actually nondistressed, whereas sensitivity is the probability that the MDMS classified the couple as distressed if they actually were distressed. PPP is the probability that the couple was distressed when the inventory found them to be distressed, and NPP is the probability that the couple was nondistressed when the MDMS found them to be nondistressed. Hit rate is the overall diagnostic power or the true positives plus the true negatives divided by *N*.

The resulting classification and diagnostic efficiency statistics for the MDMS are presented in Table 5 and Table 6, respectively. The results indicated that (a) the

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[2] $[1/(1 + e^{-(B_0 + B_1 X)})$ where B_0 is a constant and B_1 is the unstandardized coefficient. X is the couple MDMS score. For the sample, the formula becomes $1/(1 + e^{-[3.47 + (-.21X)]})$. Thus, solving for this equation to determine the probability of a couples being classified 50% of the time or more as distressed, X = 16.5. Therefore, this value was used as the cutoff.

Table 4

Results from Standard Binary Logistic Regression

Variable	B	S.E.	Wald	df	Sig.
Couple Marital Decision Making Scale	-.21	.05	15.34	1	.0001
Constant	3.47	.85	16.78	1	.0000

Table 5

Study 1: Classification Table

Actual disorder	Predicted disorder	
	Distressed	Nondistressed
Distressed	28	6
Nondistressed	1	33

Table 6

Study 1: Diagnostic Efficiency Indices

Classification measure	Proportion
Sensitivity	.82
Specificity	.97
Positive Predictive Power	.96
Negative Predictive Power	.85
Hit Rate	.90

probability that the MDMS predicted the couple was in a nondistressed relationship when they actually were (specificity) was .97, (b) the probability that the MDMS predicted that the couple was in a distressed relationship when they actually were (sensitivity) was .82, (c) the probability that the couple was distressed when the test predicted they were distressed (PPP) was .96, and (d) the probability that the couple was nondistressed when the MDMS found them to be nondistressed (NPP) was .90. Further, the results indicated that 90% of the time the MDMS made a correct prediction about whether the couple was distressed or nondistressed.

Receiver Operating Characteristics

Diagnostic accuracy of the MDMS was also examined using receiver operating characteristics (ROC; Egan, 1975; Gustafson, 1998) analysis. The ROC analysis simultaneously takes into account specificity and sensitivity. ROC values (A) can range from .50 to 1.00 where a score of .50 indicates classification accuracy is no better than chance. As A approaches 1.00, the classification accuracy increases. For the MDMS scores, $A = .90$, $z = 9.99$, $p < .001$.

Discussion

The findings of Study 1 suggest that the MDMS is a reliable and valid measure of marital decision making. Specifically, these results indicate that the MDMS has (a) high internal consistency, temporal stability, and interjudge agreement; (b) excellent construct validity (including convergent and discriminant validity); and (c) low social desirability bias. However, to determine whether the optimal cutoff score of 16.5 found in this investigation can reliably distinguish between distressed and nondistressed couples from another independent sample, a second study is needed. To evaluate the optimal cutoff

score, a new sample was recruited, and diagnostic efficiency statistics of the MDMS were examined.

STUDY 2

Method

Participants

Sixty couples served as participants. Thirty distressed couples who were currently seeking conjoint therapy for relationship problems were recruited from the upstate New York area. A demographically matched sample of 30 nondistressed couples was also recruited. The nondistressed couples were paid $10 for their participation.

Procedure

The procedure utilized in this investigation was the same as in Study 1 except only one measure was administered to the couples, the MDMS. The same matching technique was used and was found to be effective (See Table 7). Means (SDs) of participants' scores on the MDMS are presented in Table 8.

Results

Using the cutoff score of 16.5, which was generated in the first study, a new classification table (see Table 9) and new diagnostic efficiency statistics (see Table 10) were derived. The results indicated that (a) the probability that the MDMS predicted the couple was in a nondistressed relationship when they actually were (specificity) was .93, (b) the probability that the MDMS predicted that the couple was in a distressed relationship when they actually were (sensitivity) was .83, (c) the probability that the couple was distressed when the test predicted they were distressed (PPP) was .93, and (d) the probability that the couple was nondistressed when the MDMS found them to be nondistressed (NPP) was .88. Further, the results indicated that 88% of the time the

MDMS made a correct prediction about whether the couple was distressed or nondistressed. In addition, a ROC analysis was conducted, with $\underline{A} = .95$, $\underline{z} = 16.62$, $\underline{p} < .001$.

Table 7

Study 2: Demographic Characteristics for Distressed Couples and Nondistressed Couples

Characteristic	Distressed Couples (n=30)	Nondistressed Couples (n=30)
Mean (SD)		
Husband's age	34.10 (9.31)	31.70 (9.40)
Wife's age	32.13 (9.07)	31.20 (9.66)
Husband's education	12.53 (1.36)	12.13 (.82)
Wife's education	12.73 (1.23)	12.70 (1.29)
Length of Marriage	9.00 (7.16)	8.87 (8.92)
Number of Children	1.37 (1.33)	1.57 (1.45)
Number (%)		
Race--ethnic composition		
Husband		
White	21 (70)	25 (83)
African American	9 (30)	5 (16)
Hispanic	0 (0)	0 (0)
Wife		
White	23 (76)	24 (80)
African American	7 (23)	4 (13)
Hispanic	0 (0)	2 (6)

Table 8

Study 2: Means and Standard Deviations of Marital Decision Making Scale by Group

Marital Decision Making Scale	Group 1 Mean (SD)	Group 2 Mean (SD)
Husband	30.17 (15.34)	8.07 (7.16)
Wife	32.77 (15.97)	8.20 (5.74)
Couple	31.47 (14.68)	8.13 (5.83)

Table 9

Study 2: Classification Table

Actual disorder	Predicted disorder	
	Distressed	Nondistressed
Distressed	25	5
Nondistressed	2	28

Table 10

Study 2: Diagnostic Efficiency Indices

Classification Measure	Proportion
Sensitivity	.83
Specificity	.93
Positive Predictive Power	.93
Negative Predictive Power	.85
Hit Rate	.88

GENERAL CONCLUSIONS

These findings suggest that the MDMS would be a very useful addition to the other standardized measures of dyadic adjustment. The MDMS provides unique information about the way in which couples engage in and perceive their role in marital decision making. The results of Study 1 demonstrate that the MDMS has high internal consistency and temporal stability. The findings also indicate that the inventory possesses good interjudge agreement; the husbands and wives in both the distressed group and nondistressed group tend to agree on who is making the decisions and how important it is to them to be a part of that decision making process. A validity analysis of the MDMS showed that it has excellent construct validity (including convergent and discriminant validity) and low social desirability bias. Further, findings from Study 1 showed that this inventory has excellent classification efficiency. An analysis of a second independent sample revealed that these results were not sample specific; diagnostic efficiency statistics for Study 2 were demonstrated to be excellent.

Now that the psychometric adequacy of the MDMS has been demonstrated, the next step would be to incorporate it into the general assessment models used by marital investigators and examine its practical utility. For example, Birchler and Fals-Stewart (1994b) and Birchler and Schwartz (1994) outline a model of assessment and treatment of marital distress. This framework, which the authors refer to as the "7C's" model, incorporates many diagnostic and therapy-engagement procedures according to seven areas that the authors argue are fundamental to an understanding of dyadic relationships. Additionally, it has been shown to work well with a variety of couples (eg. Birchler & Fals-Stewart, 1998). In their entirety, the 7C's include: (a) Character Features,

(b) Contract, (c) Cultural and Ethnic Factors, (d) Commitment, (e) Caring, (f)Communication, and (g) Conflict Resolution. Birchler and Fals-Stewart (1998) contend that this model represents the basic dimensions of dyadic relationships, whether the couple is young or old and regardless of how long they have been married or in the relationship.

Birchler and Fals-Stewart (1998) suggest that combined with special assessment instruments and therapeutic interventions, the 7C's model is an efficient method to use to help distressed couples benefit from martial therapy. Now that the psychometric properties of the MDMS has been shown, it would be an excellent addition to the inventories already used to assess many aspects of this model. More specifically, Conflict Resolution, refers to three levels of dyadic interaction: (a) daily decision making, (b) mutual problem solving of life's problems, and (c) conflict management skills needed to resolve dyadic disputes. If a therapist treating a couple used the MDMS, specific areas of disagreement could be identified easily in a standard, objective way. Further, conflict management skills training could be tailored to the couple's identified problem areas.

From a clinical perspective, the MDMS has many other potential practical uses. For example, this inventory could be used to monitor progress in treatment. Specifically, the MDMS could be administered to determine how well the couples are learning conflict management skills. The brevity and the ease of scoring of this instrument would make this process easy, inexpensive, and time-efficient for repeated measurement.

Another potential use of the MDMS concerns the issue of power differences in the couple. By examining discrepancies between who makes the decisions and how

important it is to the respondent to make that decision, the clinician has objective information about the power differentials in the couple. Pointing out the discrepancies to the couple would enable them to talk about these differences and come to some agreement about how they will manage the balance of power and control in their relationship. This process should, however, be conducted with sensitivity by the therapist. Although the existing literature suggests that egalitarian relationships are most highly associated with marital satisfaction (e.g., Gray-Little & Burkes, 1993), it is important that the clinician not make judgments about what type of decision making style is appropriate for any particular couple. The treatment provider needs to remain sensitive to cultural and individual differences and take care to remain unbiased and nonjudgmental about what is appropriate for the couple he or she is treating (Jacobson & Christensen, 1996).

In addition to using the MDMS with couples in therapy, this instrument may be of special relevance for understanding the processes in abusive relationships. Numerous studies are showing that abuse between married and cohabiting couples is a serious problem (e.g., Straus & Gelles, 1990). Research has confirmed the observation that violence is used as a power strategy within a marriage; however, some data suggests that there is a need for a reassessment of the characteristics of battered women (e.g., Frieze & McHugh, 1992; Lips, 1991). For example, Frieze and McHugh found that the stereotypic image of battered women as passive and helpless does not always apply. Some of the women in violent relationships did make decisions, but the relationship between violence and decision making is very complex. Now that the psychometrics of the MDMS have

been established, this instrument would be an ideal tool to further explore the power dynamics of partners in abusive relationships.

This investigation had several important strengths, including: (a) sampling both husbands and wives, (b) matching distressed and nondistressed couples in a well-controlled manner, (c) using well-validiated measures, and (d) cross-validation of the inventory's diagnostic accuracy. However, certain limitations of this study should be noted. First, generalization of the results of this study may be limited because of the small sample size and because couples were recruited from only one geographic area, upstate New York. Second, the MDMS was given to participants twice with an interval of two weeks separating the administrations. It is possible that what is actually being assessed, using this short interval, is the individual's memory for the items on the test. A longer between-assessment interval may be needed to examine the temporal stability of responses to the MDMS. Increasing the time between administrations would also assess how the scores on this construct change over time as a function of improvement in the relationship.

Finally, it is important to note the limitations of using only a self-report measure to explore a psychological variable. Although the MDMS has been found to be a valid and reliable measure of marital decision making, other measures of the construct are needed to show concurrent validity. Confidence in measuring the construct of marital decision making would increase as the methods of assessment become more varied and the various lines of evidence converge. Observational techniques, such as the Marital Interaction Coding System (MICS; Weiss, Patterson, & Hops, 1976), could be used in association with the MDMS. The MICS is the most widely used observational measure

of marital interaction (Floyd, O'Farrell, & Goldbert, 1987; Wieder, & Weiss, 1980). This technique is used to describe couple's behaviors as they attempt to solve a relationship issue or conflict. It has been show to reliably discriminate between distressed and nondistressed couples (eg. Birchler, Weiss, & Vincent, 1975) and has been demonstrated to have good reliability and to be free of observer and coder bias (Wieder & Weiss, 1980).

Now that the psychometrics of the MDMS has been demonstrated using distressed and nondistressed couples, future studies are needed to examine this instrument in other contexts and with other types of interpersonal conflict. For example, although it has been shown that marital decision making is related to dyadic adjustment (e.g., Gray-Little & Burkes, 1983), it is unknown what the relationship is between marital decision making and the family environment. Family systems approaches focus on changing the structure of rules of interaction between individuals in a family (for a review of this approach, see Fincham & Bradbury, 1990). Although, research indicates that marital decision making is related to marital satisfaction, it is unclear how implementing strategies to improve couple's satisfaction with decision making will effect the family environment and its homeostasis. Research is needed to explore this phenomenon more closely.

Future studies are also needed to replicate these findings with couples who are in conjoint treatment for primary issues other than relationship distress. Research indicates that conjoint therapy is successful in treating issues such as depression (e.g., Beach, Fincham, & Katz, 1998; Odegaar, 1996) and substance abuse (e.g., Fals-Stewart, Birchler, & O'Farrell, 1996; O'Farrell, Cutter, Choquette, Floyd, & Bayog, 1992). The

emphasis of the present investigation was on how well the MDMS can discriminate between distressed and nondistressed couples, but future research is needed to determine how well this inventory can address couples who are presenting for problems other than relationship issues.

In addition to exploring the utility of the MDMS with couples who are presenting for issues other than relationship distress, research is also needed to determine the use of the MDMS as an assessment tool in preventive marital therapy. Prevention of marital distress has become a salient issue in recent years (e.g., Bodenmann, 1997; Stanly, Markman, St.Peters, & Leber 1995). Today in the United States, over half of all marriages will end in divorce, and this rate is steadily growing in other industrialized countries (Bodenmann, 1997; Gottman, 1994). In response to this phenomenon, several prevention programs have been developed. Two such programs include the Prevention and Relationship Enhancement Program (PREP; Stanly, et al., 1995) and the Couple's Coping Enhancement Training (CCET; Bodenmann, 1997). These prevention programs focus on problem solving skills training, communication training, and clarification of marital expectations. Exploring the use of the MDMS in relationship to these types of prevention programs may lead clinicians to better resources in designing treatment approaches that tailor the problem solving needs of individual couples.

In conclusion, the Marital Decision Making Scale is a reliable and valid instrument to assess the discrepancies between who makes the decisions and how important it was to the respondent to make that decision. In addition, it can be used as a therapeutic tool to identify problem areas and monitor progress in the couple's decision making problem areas. Individually tailored interventions may also be designed using

this instrument to help the partners negotiate a more desirable level of control in making the decisions, which may ultimately lead to more satisfaction for both partners in the marriage .

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Appendix A

MARITAL DECISION MAKING SCALE

Appendix A

MARITAL DECISION MAKING SCALE

Listed below are several areas that married couples make decisions on. Please consider each of these areas and indicate who usually makes the decisions in these areas and how important it is to you that you personally decide what you and your spouse do in each of these areas.

	Who Decides					How Important that You Decide				
	1 Entirely My Decision	2 Mostly My Decision	3 We Make Decision Together	4 Mostly My Spouse's Decison	5 Entirely My Spouse's Decison	1 Very Important	2	3 Somewhat Important	4	5 Not Important
1.Where you live and whether you should move.	1	2	3	4	5	1	2	3	4	5
2. What job you take and whether you should change or quit a job.	1	2	3	4	5	1	2	3	4	5
3. How many hours you work.	1	2	3	4	5	1	2	3	4	5
4. What job your spouse takes and whether he/she should change or quit a job.	1	2	3	4	5	1	2	3	4	5
5. How many hours your spouse works.	1	2	3	4	5	1	2	3	4	5
6. How many children there should be in your family.	1	2	3	4	5	1	2	3	4	5
7. When and how to praise or punish your children.	1	2	3	4	5	1	2	3	4	5
8. How much free time to spend together with your spouse.	1	2	3	4	5	1	2	3	4	5

Appendix A cont.

MARITAL DECISION MAKING SCALE

	Who Decides					How Important that You Decide				
	1 Entirely My Decision	2 Mostly My Decision	3 We Make Decision Together	4 Mostly My Spouse's Decison	5 Entirely My Spouse's Decison	1 Very Important	2	3 Somewhat Important	4	5 Not Important
9. How to spend your free time with your spouse.	1	2	3	4	5	1	2	3	4	5
10. How to spend your free time apart from your spouse.	1	2	3	4	5	1	2	3	4	5
11. How your spouse spends free time apart from you.	1	2	3	4	5	1	2	3	4	5
14. Which friends to see.	1	2	3	4	5	1	2	3	4	5
15. How to spend money on large purchases.	1	2	3	4	5	1	2	3	4	5
16. How to spend money on small purchases.	1	2	3	4	5	1	2	3	4	5
17. When to take vacation.	1	2	3	4	5	1	2	3	4	5
18. How to spend vacation time.	1	2	3	4	5	1	2	3	4	5
19. Whether to attend church, and if so, which church to attend.	1	2	3	4	5	1	2	3	4	5
20. How to follow or practice religion at home.	1	2	3	4	5	1	2	3	4	5
21. When to have sex.	1	2	3	4	5	1	2	3	4	5
22. How to have sex.	1	2	3	4	5	1	2	3	4	5

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