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Profile of durable and successful marriages: A new competency-based marital education program

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Abstract The aim of this study was to assess the impact of a newly developed competency-based marital and relationship education (MRE) program for couples in Curaçao, Dutch Caribbean. In consideration to the 57% divorce rate in Curaçao, and the view that intuition or cohabitation are the sole alternatives to marriage preparation in the Dutch Caribbean, a new additional alternative that is both intellectually defensible and empirically based was proposed. This quasi-experimental study used a sample of 310 participants aged 19-63 years. Using the Solomon design and planned contrast for one-way ANOVA, we compared pre-, post-intervention and follow-up results after 2.5 years of couples in a distress and adjusted group. Statistically significantly increased scores were obtained for (1) marital satisfaction, with an effect size (Cohen's *d*) of 2.18 for the adjusted group and 4.44 for the distressed group; (2) commitment (adjusted group *d* = 1.98, distressed group *d* = 2.90); and (3) the 12 profiled relationship competencies for marital durability (adjusted group *d* = 1.62, distressed group *d* = 6.27). Follow-up measurements conducted 2.5 years upon MRE program completion indicated that its effects were durable. We concluded that participation in the Profile of Durable and Successful Couples (PDSC) program resulted in increased marital satisfaction, relationship commitment, and mastery of the 12 profiled family and relationship competencies, that contribute to relationship durability. This implicates that the PDSC program under study can be adopted to prevent relationship erosion, while also assisting those experiencing relationship distress in finding satisfactory solutions. The competency-based focus of the program could be considered the matrix in maximizing the sustainable success of MRE program.

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PALABRAS CLAVE

Competencia,
Curazao,
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competencia en las
relaciones personales,
educación afectiva,
perfil,
matrimonio

Perfil de los matrimonios largos y exitosos: un nuevo programa de educación marital basado en competencias

Resumen El objetivo de este estudio es evaluar el impacto de un nuevo programa de educación marital o relacional basado en el desarrollo de competencias familiares para parejas en Curazao, Caribe Holandés. La tasa de divorcio del 57% y la opinión de que la cohabitación son las únicas alternativas a la preparación para el matrimonio en el Caribe Holandés demandan una alternativa adicional que no solamente sea intelectualmente defendible, sino que además tenga base empírica. Por esta razón hemos realizado un estudio tipo cuasiexperimental en el cual se usó una muestra de 310 individuos de 19 a 63 años. Además, se implementó el diseño de Solomon y el contraste planeado para el ANOVA de una vía, en el cual comparamos los resultados obtenidos de antes y después de una intervención (i.e. curso de educación de parejas). Posteriormente hemos comparado los resultados después de 2.5 años para evaluar el carácter permanente de los resultados en dos grupos de parejas, parejas ajustadas y parejas con dificultades relaciones/angustiados. Los resultados obtenidos indican puntuaciones significativamente elevadas para la variable (1) de satisfacción marital, con un tamaño de efecto (d =Cohen) de 2.18 para el grupo ajustado y 4.44 para el grupo angustiado; (2) compromiso (d del grupo ajustado = 1.98, d del grupo angustiado 2,90); y (3) las 12 competencias perfiladas para la durabilidad marital (d del grupo ajustado = 1.62 y grupo angustiado = 6.27). Hemos concluido que el programa aumentó la satisfacción marital, el sentido de compromiso con la relación y el dominio de las 12 competencias perfiladas para la familia o relaciones duraderas. Este estudio tiene la siguiente implicación: la sensibilidad cultural y el enfoque basado en desarrollo de competencias pueden ser cruciales y la matriz en la maximación del éxito sostenible de programas de educación relacional y marital como herramienta de intervención preventiva y/o de tratamiento.

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High divorce rates are a concern worldwide, partly because of their social impact as well as their significant financial cost for most nations. For example, in 2008, the cost of divorce to the U.S. taxpayers was estimated at 112 billion (Mrozek & Walberg, 2009; Scafidi, 2008), while 7 billion CAD was cited for the same year in Canada (Mrozek & Walberg, 2009). According to the available statistics for Australia, in 2014, divorce was estimated to cost 14 billion AUD (Muehlenberg, 2014), while 37 billion and 49 billion GBP was reported for the UK in 2009 and 2014, respectively (Bingham, 2014). Plethora of determinants and causes of divorce have been proposed to date, however divorce rates are still of concern worldwide. Both the financial and traditional well documented social impacts of divorce demand more research to discover and propose new solutions. In the Dutch Caribbean (i.e., Curaçao), 57% of marriages end in divorce (Central Bureau of Statistics Curaçao [CBSC], 2017).

The current research assumed that divorce may reasonably be attributed to the absence of marital/relationship education, alongside commonly accepted determinants, such as (a) personality differences (Kang, 2010); (b) inappropriate partner selection (Lou & Klohn, 2005); (c) short courtship duration; (e) premarital cohabitation (Waite & Gallagher, 2000); and (g) problem-solving incompetence (Hawkins & Fackrell, 2010); to mention a few. A pilot study performed in the initial phase of this research indicated that 92% of couples in Curaçao have never been exposed to marriage or relationship education programs. Hence, the main objective of this research was to provide a new competency based and culturally sensitive marital education program and test its effectiveness. The program's impact was measured in an experimental study using the Solomon four-group design, whereby a follow-up evaluation was performed two and half years upon program completion to assess durability of developed competences.

Profile of Durable and Successful Couples Program

The MRE program Profile of Durable and Successful Couples (PDSC) was developed for the present study as an educational and intervention tool aimed at mitigating relationship challenges. Its design was based on the comprehensive framework for marriage education provided by Hawkins et al. (2004), which was completed by incorporating the Family Competence Training Model (FCTM) specifically developed for the present investigation.

A new program was developed, rather than adapting one of the existing MRE programs to avoid classical issues authors face when adapting a program such as (a) the need to achieve culturally relevant language adaptation, considering colloquialisms, examples, presenter effect advantages, etc. (Bradford et al., 2013; Jemmott et al., 1999); (b) ensuring culturally relevant accepted norms/values; (c) availability of context-appropriate systems providers; (d) provision of relevant definitions of undesirable behaviors; (e) potential compromise of the theoretical and conceptual integrity; (f) incongruence with the original aim and target population; (g) assessment of universal factors vs cultural specific factors; (h) need for rigorous testing of the culturally adapted version, with a control group and random sample design, etc.; and (i) ensuring validity of both the measurement instrument and the program, among other issues. In addition to mitigating the potential effect of the aforementioned factors, by creating a new program, it was possible to focus on competency development, as this was one of the main deficiencies of the existing MRE programs and a new approach in designing MRE programs.

Finally, a particular reason that justifies the development, and initial validation of a new program is that the most common intervention tool which is couples' therapy

has been extensively researched during the last two decades (Snyder, 2012) and has been largely considered an effective approach for mitigating both determinants and generic risk factors that contribute to divorce (Klann, Hahlweg, Baucom, & Kroeger, 2011). However, poor responses and contradictory results reported for couples' therapy necessitates continued investigation of the topic while exploring other alternatives (Halford, Markman, Kling, & Stanley, 2003; Snyder, Castellani, & Whisman, 2006; Wudarczyk, Earp, Guastella, & Savulescu, 2013). MRE programs are one such alternative, (Blanchard, Hawkins, Baldwin, & Fawcett, 2009; Hawkins, Blanchard, Baldwin, & Fawcett, 2008; Hawkins & Fackrell, 2010).

Marriage and Relationship Education Programs

MRE is currently accepted as a credible and empirically supported approach that maximizes the potential for marital success. MRE programs are defined as couple-based training courses in which structural and non-structural information is imparted and couples are encouraged to develop skills to deal with challenges that may arise in marital relationships. In sum, MRE provides information and skills-based group programs to prevent and remediate marital distress.

A comprehensive review of the first generation of MRE studies (i.e., a total of 150 published during 1975-2005) indicates that MRE improves relationship quality and enhances communication skills for approximately 40-50% and 50-60% of participating couples, respectively (Hawkins et al., 2008). Findings yielded by these earlier studies also indicate that skills gained due to attending MRE programs remain effective for seven to 12 months following course completion (Blanchard et al., 2009), while some authors claim that they can persist for up to ten years (Hahlweg & Richter, 2010). MRE can also effectively decrease divorce rates (e.g. Stanley, Whitton, Sadberry, Clements, & Markman, 2006); however, most research was conducted in the US, making universal assumptions difficult when considering cultural difference. Besides considering some authors allegation that MRE failed to work or failed to report post intervention improvement (Avishai, Heath, & Randles, 2012; van Widenfelt, Hosman, Schaap, & van der Staak, 1996) it is unsurprising that more research are requested; and extant studies (according to some researchers) need to be replicated to confirm their findings in new cultural contexts (Fawcett, Hawkins, Blanchard, & Carroll, 2010). In the Dutch Caribbean, no studies have yet been conducted to develop, validate, or corroborate the functionality and effectiveness of an MRE program. Hence this research is imperative, and the variables proposed for analysis are of interest and meaningful because these are highly related to marital durability (Banachand & Caron, 2001; Schmitt, Kliegel, & Shapiro, 2007). For this research, the variables of interest considered were marital satisfaction, relationship commitment and the newly proposed relationship or family competency.

In this study, marital satisfaction is considered a mental state that reflects the perceived benefits and costs of marriage to a particular person. The more costs spouses inflict on one another, the less satisfied they will be with the marriage, whereby the reverse is true if partners find their

relationship beneficial (Stone & Shackelford, 2007). Marital satisfaction has been associated with various variables such as parenthood transition (Hartley et al., 2012), marital expectations (Ngazimbi, Daire, Soto, Carlson, & Munyon, 2013) and demographic factors (Orathinkal & Alfons, 2015). However, the link between marital satisfaction and relationship competence has not yet been investigated.

Marital commitment, on the other hand, is typically defined as the tendency to remain in a marital relationship even when problems emerge or more appealing alternatives exist (Amato & DeBoer, 2001). In the present study, it is considered in terms of Rusbult's Investment Model, according to which commitment comprises of three pivotal dimensions, namely satisfaction, quality of alternatives, and investment size (Rusbult, Martz, & Agnew, 1998).

In extant research, commitment's pivotal role in marital relationship duration has been investigated, and has been linked to loyalty, strong moral values, and sexual fidelity (Banachand & Caron, 2001); women's income and marital satisfaction (Rusbult et al., 1998), belief in the sanctity of marriage, positivism (i.e., the belief that "things will improve"), as well as happiness, reward, investment, quality of alternatives, and church attendance. However, its association with relationship or family competencies has been overlooked, even though these are potentially key contributors to relationship durability.

Family and Relationship Competencies

In the present study, general definition of competency was adopted, whereby it was viewed as a cluster of related abilities, commitments, knowledge, and skills that enable individuals to act effectively (Businessdictionary.com, 2018). They may also be defined as behaviors that contribute significantly to the effective functioning of a relationship (Frola, 2012). Family competencies comprise integration and activation of knowledge, attitudes, values, and skills that help improve family functioning. They enhance opportunities for development and health of individual family members and are based on egalitarian family norms, such as the foundation of a strong family ecology (Shanmugavelayutham, 2012).

The MRE program developed and used here was based on the Family Competence Training Model (FCTM) and focuses on helping participants develop the four components of competence. It addresses knowledge and skill (similar to the skilled-based programs) but additionally and distinctively it focuses on fostering the development of attitude and traits. The procedure for building the theoretical case for the FCTM included three steps, as outlined below.

- (1) A systematic literature review to explore determinants and risk factors of divorce, as well as determinants of long-term relationships and protective factors.
- (2) We conducted qualitative interviews with mental health professionals, to gain further insight into the relevance of the identified factors and appropriateness of their inclusion into the MRE program.
- (3) We further consulted members of the population of interest (i.e., couples residing in Curaçao) regarding themes and topics they consider most relevant for their success as a couple.

The findings yielded by these three steps resulted in the final list of 12 competencies for inclusion in the MRE program. Therefore, the FCTM developed and implemented in the present study was guided by the premise that these 12 general relationship competencies are pivotal to relationship quality and satisfaction and thus contribute to marital durability. Each of these competencies includes four dimensions—knowledge, attitudes, skills, and traits. For example, the first competency—*capacity to commit and maintain a relationship as it undergoes different phases*—includes knowledge of the different phases that families and relationships undergo; an *attitude* of commitment to remain in a marriage despite challenges and to turn toward instead of away from each other in challenging times (Gottman & Gottman, 2006); *skills* such as problem-solving, ability to pursue and maintain previously established objectives; and character *traits*, such as self-control, patience, and maturity. The 12 pivotal and critical competencies incorporated into the MRE program are outlined below.

- (1) *Commitment to generate personal growth/character development and to maintain a relationship as the couple undergoes distinct phases of marriage.* As couples face the inherent challenges of marriage successfully because of their internal locus of control, they transform and improve. Their character develops and propels them to reach their maximum potential. A pivotal aim of marriage is character development, as happiness and good character are interrelated.
- (2) *Effective management of emotions, which implies emotional and social intelligence, and the ability to nurture their relationship and keep love alive.* The couple understands and manages the five languages of love (as proposed by Chapman, 2005) and successfully fosters a profoundly loving environment and relationship. In sum, this competency addresses the couple's capacity to nurture love in their relationship.
- (3) *Adaptability and foresight, which implies effective management of the family life cycle.* The couple can cope with the stages that families and relationships undergo. They can respond to the demands and challenges of each stage and weather through the challenges and changes inherent in the family lifecycle while retaining a sense of happiness and fulfillment.
- (4) *Effective family management, home planning, and leadership.* This implies being able to create functional structure, assign tasks, manage family issues, successfully maintain egalitarian management policy, and achieve planned or established goals. In sum, couples exhibit the ability to manage time effectively, prioritize, and optimize internal family functioning.
- (5) *Ability to understand and successfully cope with different personalities.* The complementary roles of personality differences, rather than partner compatibility alone, are observed and emphasized. Paradigm shifts are proposed so that, instead of seeing personality differences as defective or incompatible, the couple rather assesses and interprets these differences as potential complementary qualities that may increase relationship synergy.
- (6) *Competent communication and problem-solving capacity.* The couple has established productive communication patterns and positive interactional exchanges. Both partners can communicate and negotiate effectively, assertively, tactfully, and openly. In sum, both partners are able and willing to solve problems, prevent escalation, and move beyond "compromise" to highly and mutually satisfactory solutions. They can cope with or find ways to accommodate unchangeability.
- (7) *Competent management of gender differences.* Understanding the complementary aspect of gender differences and demonstrating ability to cope with gender-specific traits and behaviors. This includes managing, planning, and creating opportunities for the needs of both genders to be satisfied within the family unit, guided by the premise that gender differences are an asset, not a liability, to the relationship.
- (8) *Ability to generate and nurture healthy family characteristics.* The couple establishes a healthy family system distinguished by healthy family processes and are able to create both a functional structure and daily interchange that generates healthy family qualities. Characteristics of healthy families are hallmarks that distinguish them from their unhealthy counterparts.
- (9) *Successful financial and resource management.* The couple can make and stay on a budget, augment assets, make financial plans, adjust spending behavior to level of income, and establish and achieve short- and long-term goals without undue stress or intra-family conflict.
- (10) *Capacity to consistently satisfy the partner sexually and manage intimacy.* Both partners can satisfy the other person sexually and maintain a passionate and intimate sex life. They have intimacy under control and refrain from inappropriately building intimate bonds outside the marital relationship.
- (11) *Parenting proficiency and capability.* The couple demonstrates the ability to raise productive and well-balanced children and strive to nurture in them a sense of autonomy and self-governing ability.
- (12) *Mastery of spirituality and purpose-driven life.* The couple are productive, churchgoing, religious people with equanimity and well-balanced character and who are connected to and serve society. Families that live purpose-driven lives, with contribution goals instead of self-interest goals; they are families with ecosystem motivation rather than ego-system motivation (Crocker, 2008).

These 12 competences were incorporated into the MRE program, as it was hypothesized that, as couples develop these competencies, their relationship satisfaction increases, their level of commitment would increase concomitantly, and consequently, the marital relationship is propelled into durability and longevity.

The PDSC program was designed to be delivered across 14 lessons, each lasting 90 minutes, while participants were also provided with a purposefully-designed manual. Illustrative video clips and other appropriate visual aids were utilized to enhance content delivery. However, more information regarding theoretical construction, structure, scope, content, topics, sequence of presentation, group process / interactive activities, instructional method, the videos clips and dramatization of concepts, assignments aimed at fostering development of competencies, and their assess-

ment; presenter qualifications, recruitment procedure, in-depth discussion of 12 competencies, and the FCTM program evaluation sessions will be provided on request, as this is beyond the scope of the present paper.

Conceptual and Theoretical Framework

The relationship and family competencies that underpin the marital education program developed as a part of the present study are rooted in a wide range of pertinent theories, as the goal was to provide a comprehensive program that addresses all facts of family life, thus increasing the likelihood of its long-lasting benefits. In other words, the framework adopted in this work was guided by the “blind men and the elephant” parable aiming to convey that an individual’s truth is always only partial (Daigneault, 2013). In other words, while one’s subjective or even objective experience can be true, such perception or experience is inherently limited by its failure to account for other truths or a totality of truth. However, although the 12 competencies were based on several theories, systemic or family systems theory (Papero, 1990) was predominantly considered as each competency was identified/defined. For example, two theories underpinned the first competency, *Ability to commit and maintain the relationship as it undergoes the development stages*. The first is Rusbult’s Investment Model. Rusbult (1983) found that commitment is a key ingredient for marital durability. She posited that commitment depends on three main factors—level of satisfaction, size of investment, and quality of alternatives. According to Rusbult, commitment refers to the tendency to persist in a relationship. The second theory is Minuchin’s (1974) insight that each family system desires homeostasis, and each individual member desires to stabilize the system and contribute their part to balancing the system so that they may be satisfied. Consequently, a critical competency could be the capacity to commit and maintain balance as the family undergoes different phases.

Method

Design

This research adopted a semi-longitudinal, quantitative, quasi-experimental approach. It assessed the impact of an intervention with follow-up at two and a half years. A Solomon four-group design was used, because of its appropriateness and because it’s one of the most rigorous design used in quantitative studies to deal with internal and external validity (Mcgahee & Tingen, 2009).

Research Questions

- (1) Does the MRE program evaluated in this study significantly increase the marital satisfaction of the participants?
- (2) Does the MRE program stimulate significant development of competencies? Do the couples still exhibit these competences after 2.5 years?
- (3) Does the MRE program increase couples’ level of commitment?

- (4) When sample groups of adjusted couples, and distress couples are compared with control groups will there be a significant difference?

Materials and Instruments

Three measures were used:

First, the Dyadic Adjustment Scale (DAS; Spanier, 1976) measured each couple’s satisfaction levels prior to and post intervention. This 32-item instrument has a Cronbach’s alpha of .96 (Frances & Guzzo, 2009) and requires responses on a 6- or 7-point Likert-type scale. Prior to conducting the study, the DAS was translated from English to Papiamentu (through two professional translation agencies) using the double-blind translation method/back-translation. Its content was contextualized and validated in the context of the local population of Curaçao, the Dutch Caribbean, by administering the questionnaire to 204 participants and a Cronbach’s alpha of .933 was reported.

Second, the Rusbult Commitment Scale (RCS; Rusbult et al., 1998) that is part of the Investment Model Scale was used to measure couples’ level of commitment prior to and post intervention. The Cronbach’s alphas range .91-.95. An 8-point Likert-type scale was used to score participants’ responses. A higher score corresponds to a higher level of commitment, and the maximum score is 120. The Rusbult test was both translated/contextualized and validated in a study comprising of 102 participants. It reported a Cronbach’s alpha of .956.

Finally, the Inventory of Pivotal Competencies for Sustainable Relationships (IPCFSR) was designed to specifically assess the presence and development of family or relationship competencies. Cronbach’s alpha values reported for this instrument in the pilot ($N = 130$) and the main study ($N = 372$) were .97 and .99, respectively. This measure’s validity was confirmed via Confirmatory Factor Analysis, along with other classical validity tests such as face, content, construct, and criterion validity (e.g., predictive validity). Moreover, structural equation modeling (SEM) was conducted to test the overall fit of the proposed conceptual/theoretical model underpinning the instrument. In addition to the section probing into the classical demographic variables, such as age, gender, relationship status, relationship duration, etc., the instrument comprised of 109 items, divided into 12 sections, aligned with the 12 competencies being assessed. Its aim was to measure four key competence components, namely knowledge, skills and/or ability, traits, and attitudes. This self-report questionnaire took approximately 25 minutes to complete and all items required responses on a 7-point Likert-type scale. The maximum score was 763, whereby a score exceeding 454 indicated that participants had mastered the competencies. The development and validation of this instrument is not discussed in this work but in a next, as the focus is on the results of confirmatory analysis and SEM.

Sample Selection Process

A Smart Family Convention was organized in Curaçao. The researcher adopted a convenience sampling method. The SMART Family Convention was promoted through radio, schools, flyers, churches, and social me-

dia. The Convention attracted 322 attendees, of whom 310 ended up participating in the research. Twelve participants were excluded due to incomplete questionnaires and other reasons.

Participants' age ranged from 19 to 63 years (mean = 36, mode = 32 years). Moreover, 12% of the sample had completed primary school only, 45% had completed secondary school, 40% had attended college, 1% held a graduate degree, and 2% selected "other" to indicate their educational attainment. Furthermore, 77% of participants were married, and 23% cohabitated. The couples had been in their current relationship for two and 32 years (mean = 11.5, mode = 2, median = 9 years). Curaçao was the country of birth for 90% of participants, while 5% indicated Bonaire, and the remaining 5% of the sample stated other countries (including Jamaica, mainland Netherlands, Aruba, and Saint Maarten).

Classification of Sample Participants

Based on the DAS scores, for the analysis purposes only, the study sample was separated into two groups, whereby couples that achieved 91 points were classified as the "distressed group" and those who scored above 91 formed the "adjusted" group (Graham, Lui, & Jeziorski, 2006). However, both groups were simultaneously exposed to the same intervention, a process referred to as "blinding technique" (Cone & Foster, 2010; see Table 1 and A1). For ethical considerations, we used the waiting list approach and force majeure argument to form the three control groups, as outlined below.

The post-test only with intervention group included couples who could not attend the first day (i.e., assessment day) because of work, sickness, travel or other reasons, but could attend four or three days of the MRE course. On the other hand, couples that refused to participate in the MRE, or could not attend the program for more than two days for any reason, formed the control group without intervention, as attendance for at least three days was an important

criterion for measuring program effectiveness. Members of this group that desired to attend the next Smart Family Convention were placed on a waiting list. The final control group was formed 2.5 years after this initial program delivery, resulting in five groups in total (see Table A1).

Some of the inclusion criteria were heterosexual couples, DAS scores, married and cohabitating couples that have lived together for at least two years, and first-time married couples.

Table A1 Solomon's Four-Group Design (Adapted Version)

Group	Pre-intervention	Independent Variable	Post-intervention	Follow-up (2.5 years)
E1	O1	X	O2	O3
E2	O1	X	O2	O3
C1	--	X	O2	
C2	O1	--	O2	
C3	--	--	--	O1

Notes: E1 = experimental group, adjusted; E2 = experimental group, distressed; C1, C2, and C3 = control groups; O1, O2, and O3 = observation time points. The dependent variables were the development of marital and relationship competencies.

In sum, the participants were grouped as follows:

- (1) Experimental group 1 (adjusted couples), which completed the MRE training program (the intervention) as well as all pre-intervention, post-intervention, and follow-up assessments $n=102$
- (2) Experimental group 2 (couples experiencing relationship difficulties, denoted as "distressed") which completed the MRE training program (the intervention) as well as all pre-intervention, post-intervention, and follow-up assessments $n=54$

Table 1 Demographic Characteristics

Variable	Values	E1/N=	E2/N=	C1/N=	C2/N=	C3/N=
Education	Primary	0	31 (60%)	0	2 (4%)	0
	Secondary	47 (47%)	21 (40%)	29 (46%)	23 (48%)	17 (39%)
	College	51 (52%)	4	33 (52%)	23 (48%)	19 (43%)
	Graduate	1 (1%)	0	1 (2%)	0	8 (18%)
Marital status	Married	82	37	56	31	31
	Cohabitation	20	15	8	17	10
Relationship length	<i>M</i>	12.8	8.8	5.8	9.6	7.7
	<i>SD</i>	8.24	13.10	8.17	6.25	4.67
Age	<i>M</i>	39.3	32.6	38.1	34.3	33.5
	<i>SD</i>	10.77	7.38	9.98	7.70	7.47

Notes: E1 = experimental group (adjusted), E2 = experimental group (distressed), C1, C2, and C3 = post-test only with intervention, control group with pre- and post-test but without intervention, and control group with no pre-test and no intervention-only post-test after 2.5 years, *SD* = standard deviation, *M* = mean

- (3) Control group 1, formed by couples that did not partake in the intervention, but completed the pre- and post-intervention assessments $n=50$
- (4) Control group 2, comprising of couples that have not taken part in the pre-intervention assessments, but completed both the MRE training program and post-intervention assessments $n=64$
- (5) Control group 3 (couples recruited 2.5 years after the intervention delivery), exposed only to the post-test, allowing the previous groups' performance on 12 competences to be evaluated $n=40$ (see Table A1).

Intervention Procedure

The MRE program was delivered over a four-days period. On the first day, the attendees received a participant's manual and other standard seminar materials and completed the pre-intervention assessments. Over the course of four days, the event attendees were exposed to intensive training, whereby the content was delivered over 21 hours, in line with other family life education programs (Hawkins et al., 2008; Hawkins, Stanley, Blanchard, & Albright 2012; Pinquart & Teubert, 2010). A summary of the program's content and cultural differentiation (local language information, local presenter, use of colloquialism, contextualization of universal concepts, local anecdotes, statistics, common challenges and metaphors, and other cultural elements) will be provided on request.

On the first day, the participants provided baseline (pre-intervention) data, as well as completed three measures, namely DAS, RCS and IPCFSR. These scores served as baseline against which post-intervention and follow-up assessment conducted 2.5 years later were evaluated. As the aim of the intervention was to impart 12 previously defined competences, relevant instruction was split across the four subsequent days in 2:2:6:2 (with the numbers denoting number of competencies covered) format, while the participants also completed post-intervention instruments on the fourth day. For the follow-up measurement 2.5 years after MRE delivery, the Smart Family Convention Part 2 was organized. The same promotion and recruitment strategies were adopted as those used initially including phone calls.

Planned Analyses

Data analysis in this research project entailed three major phases, the first of which consisted of data analysis plan, data collection, preparation of codebook, setting up data structure, merging entered data, and data screening. The second phase was designated for data exploration, which included performing descriptive statistical analyses using SPSS version 22, e.g., frequency analysis of the data set and the replacement of missing values using a mean series procedure (mean imputation method). The third and final phase included analysis of the revised data, which entailed exploring relationships among variables, comparing groups (between), and gender (within group), hypotheses testing, etc.

Descriptive analyses were performed and both skewness and kurtosis were calculated to assess data distribution. The results indicated that the data followed normal distribution. Criteria used for acceptable skewness and kurtosis is -2 and $+2$ (George & Mallery, 2010).

The Mauchly's test of sphericity was conducted and indicated that the assumption of sphericity had not been violated, $\chi^2(2) = 1.242, p = .537$.

Planned comparisons of baseline and post-intervention scores were conducted. Analysis of variance (ANOVA) results were obtained. Specifically, we compared the pre- and post-intervention results obtained by the adjusted group, as well as the scores achieved by the distress group. We have also compared the adjusted and distressed group results with those obtained by all three control groups. In sum, the aim of analysis was to compare pre- and post-intervention results to assess how effective the program was in imparting the 12 competencies, whereas the comparisons performed 2.5 years after program delivery served to assess durability of achieved outcomes. Moreover, commitment and marital satisfaction, which were treated as dependent variables, were also analyzed for potential improvement via paired sample t-test and additionally we have assessed their potential interrelationship using SEM. Despite the debate regarding appropriateness of ANOVA versus regression for Solomon design, we have chosen ANOVA as the main analysis procedure because Van Engelenberg (1999) stated, "no single proper analysis technique is known for the Solomon design" (p. 9). This is consistent with the view put forth by Campbell and Stanley (1966) who posited, "there is no singular statistical procedure which use all six of observation simultaneously" (p. 25). Despite these assertions, many relevant professionals concur that ANOVA and MANOVA could be the most appropriate tools in this research context. Ferguson and Bibby (1999), for example, argued that, "With the Solomon's four group design ANOVA is the most appropriate statistical analysis" (p. 124).

Results

In this section, statistical analysis results are reported in relation to the pertinent hypotheses, derived from the previously outlined research questions.

Hypothesis 1: Couples who participated in the PDSC program would achieve increased satisfaction level scores on the post-intervention DAS compared to their pre-intervention values.

The one-way ANOVA was statistically significant ($F(4, 367) = 296.80, p < .001$). In general, the model reported an eta-squared (η^2) of .71 and the power of 1.000 (based on alpha = .05). When the pre- and post-intervention data were compared (see Figure 1), a significant positive effect was found for the distressed group ($t(99.22) = 22.65, p < .05, d = 4.44$), and the adjusted group ($t(140.31) = 15.56, p < .05, d = 2.18$).

Hypothesis 2: Couples who participated in the PDSC program would improve their relational competency skills scores on the post-intervention IPCFSR relative to their pre-intervention values.

The ANOVA was significant ($F(4, 367) = 562.14, p < .001, \eta^2 = .84$). According to the comparison results (see Figure 2), there was a significant increase between the pre- and post-intervention scores for marital competence in the distressed group ($t(85.73) = 72.88, p < .001, d = 14.29$) and the adjusted group ($t(182.10) = 11.59, p < .001, d = 1.62$). However, the results pertaining to the control group that did not take part in the PDSC program revealed no significant differences between the pre- and post-intervention scores ($t(125.78) = .93, p = .35$).

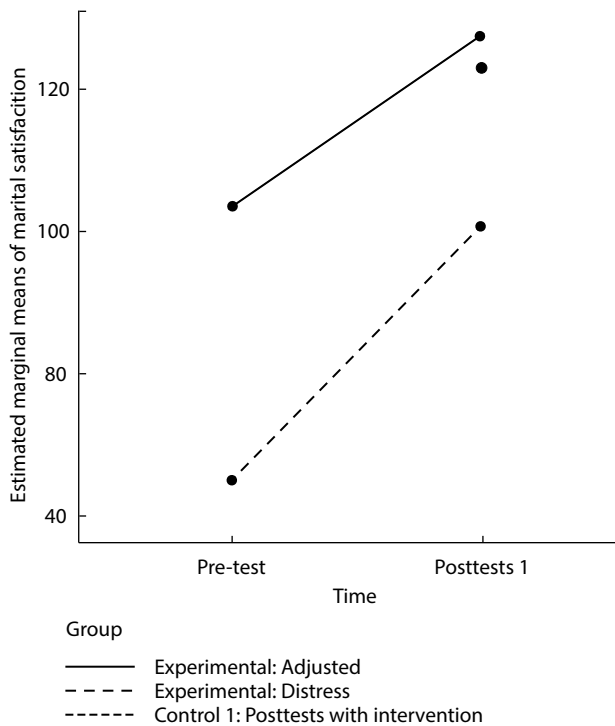


Figure 1. Mean marital satisfaction scores among groups.

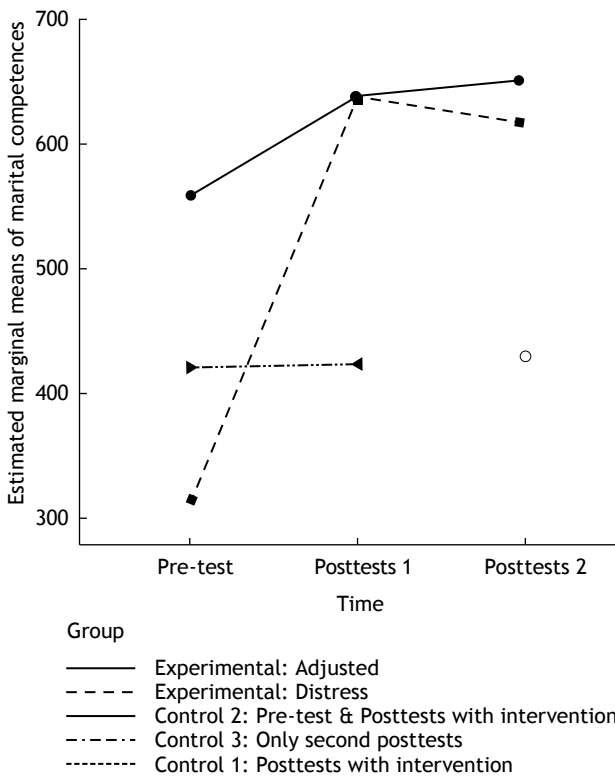


Figure 2. Mean family competency scores among groups.

When the follow-up measurement was conducted two and a half years after PDSC intervention completion, the findings pertaining to the adjusted group indicated that the competencies these couples attained were durable. Moreover, the scores this group obtained for family and relationship competencies increased slightly ($t(140.04) = 2.13$,

$p = .035$, $d = .33$) when compared with the post-intervention scores obtained two and a half years prior. For the distressed group, the follow-up results also indicated that the changes in competencies due to program attendance were sustained. However, a small decrease was noted in the level of mastery of the 12 competencies ($t(39.96) = 2.04$, $p = .048$, $d = .50$). Additionally, when the post-intervention scores of the adjusted group, the distressed group, and the post-test-only-with-intervention group were compared, there were no significant differences (see table A3 and Figure 2). This finding indicated that these groups have achieved the same level of improvement in their relationship competencies due to the intervention, rather than some other confounding factors or variables such as pre-test effect, etc. Table A2 provides detailed results reported regarding the significant increase in each of the 12 competencies.

Hypothesis 3: Couples who participated in the PDSC program would demonstrate significantly increased commitment scores on the RCS from pre- to post-intervention

The ANOVA was significant ($F(4, 367) = 562.14$, $p < .001$; $\eta^2 = .84$). According to the comparison results (see Figure 3), there was a significant increase in commitment levels between the pre- and post-intervention ($F(9, 600) = 346.58$, $p < .001$). The significance of this finding is further corroborated by the noticeable effect size for the distressed group ($t(95.61) = 20.88$, $p < .001$, $d = 4.10$) and the adjusted group ($t(118.71) = 14.13$, $p < .001$, $d = 1.98$).

Discussion

The aim of the present study was to assess the outcomes of an intensive couples' relationship education program in terms of improvement in 12 competences attained by adjusted and distressed couples. As initially predicted, the MRE program improved participants' marital satisfaction, couple commitment, and relationship competence. Further, we may infer that lack of marital education could contribute to marital breakdown; hence, couples who develop the 12 competencies discussed here may be more likely to maintain durable relationships than their counterparts who lack these competencies.

These research findings provide several interesting insights. First, the current research contributes to extant knowledge by clarifying the effects of cultural components in the dynamics of treatment and intervention procedures. The significant differences and the large effect sizes reported because of exposure to MRE could be attributed to the cultural component and competency development focus.

It can also be inferred that competency-based MRE as an intervention or preventive treatment could contribute to sustained marital satisfaction and relationship stability. Hence, these findings differ from those reported in extant research, where authors have not found significant long-term intervention effects (e.g., van Widenfelt, Hosman, Schaap, & van der Staak, 1996).

This research opens new avenues for the development of MRE and CRE programs by establishing an initial empirical foundation to encourage other researchers to design programs geared toward developing competencies, rather than relying solely on information-based or skills-based programs. Focusing on developing competencies—which entails increasing knowledge, mastery, and skills, complemented

Table A2 Summary of MRE Program Outcomes as Measured by Pre- and Post-Intervention Assessments

Competencies Measured	Pre-intervention M (SD)	Post-intervention M (SD)	t***	Effect size: Cohen's d	Effect size: η ² = Eta squared
Commitment to personal improvement and management of phases of marriage	4.60 (1.20)	6.16 (.47)	16.92	1.73	.65
Social and Emotional Intelligence – ability to love and nurture relationship	4.53 (1.09)	6.01 (.47)	16.54	1.76	.64
Management of family developmental stages/lifecycle	3.80 (1.39)	5.74 (.06)	16.00	1.98	.63
Family management and home planning	3.43 (1.25)	5.29 (.73)	16.00	1.82	.63
Mastery of personality differences	4.59 (1.15)	5.96 (.53)	15.23	1.53	.60
Effective communication, conflict resolution, and problem solving	4.46 (1.15)	5.86 (.43)	14.81	1.61	.598
Competent gender difference management	4.29 (1.52)	5.97 (.56)	14.38	1.47	.58
Nurturing capacity that generates characteristics of a healthy family	4.12 (1.54)	5.76 (.51)	13.49	1.430	.54
Successful management of resources and finances	3.91 (1.52)	5.60 (.64)	12.90	1.46	.52
Sexuality and intimacy management	4.99 (.945)	6.05 (.53)	14.68	1.36	.59
Mastery of parenting competencies	4.82 (1.06)	5.84 (.68)	12.69	1.15	.51
Religious and spiritual mastery	4.95 (1.17)	5.94 (.62)	12.01	1.05	.49

Note: ***p < .001; M = mean, SD = standard deviation. Power for each competency was 1.000

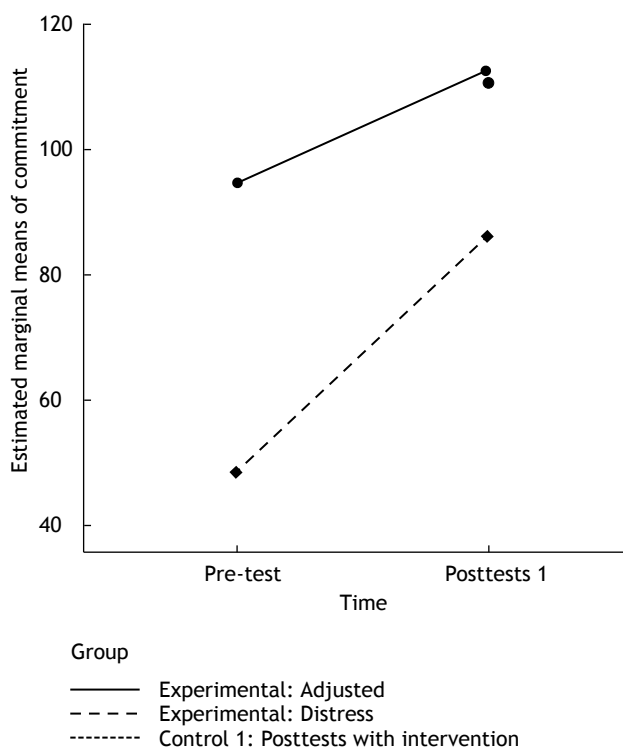


Figure 3. Mean levels of commitment among groups.

with improvement in attitudes—could be a viable approach to inducing significant changes in relationship dynamics that may otherwise lead to marital resolution. While cou-

ples could acquire the requisite knowledge and skills, if their attitudes are not addressed, significant and durable changes may not occur, because *knowing is not yet doing*. Therefore, it is imperative for MRE designers to include the attitude change component and design strategies that foster attitude changes in couples attending their MRE programs. This can be done by consistently contrasting benefits of change with consequences of not changing/maintaining the status quo, visualization of results techniques, stimulating latent and dormant abilities, providing exercises to foster feelings of competence, and discussing the futility of knowing without consistently practicing—i.e., doing.

Finally, the findings reported in this work suggest that a sense of competency may increase (as predicted) both commitment to the relationship as well as marital satisfaction. This is consistent with the Self-Determination Theory; (Deci & Ryan 1985).

Implications

Considering that results yielded by prior research as well as the current findings support the notion that MRE has the potential to act as a protective factor against family breakdown, it can be posited that an MRE tailored or geared toward developing competencies could be a major contributor to marital and relationship stability, sustainability, and longevity. Competency-based MRE programs provide a new venue for discussion by presenting both an intellectually and empirically defensible alternative for consideration. Such initiatives provide policy-makers with cogent arguments for proposing validated educational interventions aimed at increasing marital success and durability.

Table A3 Mean Scores on the Pre- and Post-intervention Assessments, as well as on the Follow-up Assessment for the Five Groups

Competence	Test	E1 M (SD)	E2 M (SD)	C1 M (SD)	C2 M (SD)	C3 M (SD)
Total	Pre	558.0 (57.01)	313.8 (16.93)		420.7 (42.92)	
	Pos	638.3 (40.44)	635.9 (27.00)	631.9 (43.87)	422.7 (41.54)	
	Pos2	652.0 (41.96)	616.6 (47.64)			429.2 (101.1)

Note. E1 denotes Experimental Group 1 (adjusted) and E2 refers to Experimental Group 2 (distressed), whereas the three control groups are designated as C1 (post-test with intervention only group), C2 (control group without intervention) and C3 (control group formed 2.5 years after MRE completion). *M* = mean, *SD* = standard deviation

Limitations

One of the limitations of the present study stems from the non-random sample selection, which hinders generalization of the obtained findings. However, making the framework more robust by adopting Solomon design helped to ensure reliability.

Another limitation that could potentially affect results accuracy is the attrition rate for the 2.5-year follow-up posttest, which was 19% for the distressed group and 33% for the adjusted group. However, it is important to mention that all couples that took part in the MRE program completed the initial post-test. Given that no consensus on the acceptable attrition rate exists for longitudinal studies, we cautiously argue that this did not substantially affect the outcomes of this investigation. For example, Babbie (1973) suggested 50% follow-up rate as “adequate,” 60% as “good,” and 70% as “very good.” On the other hand, Kristman, Manno, and Cote (2004), who researched influence of attrition/follow-up related to bias found no important bias (as usually is assumed) with levels of loss that varied from 5 to 60% on experimental effects.

Finally, as no comparison with a group exposed to skills-based program was conducted, it is difficult to contend indisputable advantage of a competency-based MRE program. Thus, further research is needed to address these limitations.

Conclusion

The PDSC program underpinned by FCTM that was developed and tested as a part of this investigation could be an effective means for providing couples with pertinent tools for relationship durability. The MRE program yielded significant improvements in marital satisfaction, level of commitment, and level of mastery of 12 competencies and was thus demonstrated as beneficial for both well-adjusted and distressed couples. In particular, it improved relationship durability potential by helping couples develop or increase mastery of the 12 profiled competencies for marital durability, which were retained or even enhanced 2.5 years after program completion.

These results suggest that a competency-based MRE could serve as a matrix for durable relationships as a preventive- or treatment-intervention program. Improvements in family competence should result in improvements in marital satisfaction and commitment. Ultimately, the MRE program provides couples and policy maker with an informative and epistemological understanding of MRE as a potential preventive or treatment program.

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