

# Development and Validation of the Relationship Competence and Relationship Intelligence Assessment Scale

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**Abstract:** Divorce and relationship meltdown continue to be of worldwide and transcultural concern due to the deleterious effect on families and communities. One of the main causes for relationship meltdown and divorce is a lack of relationship competence or relationship intelligence; however, there is currently no instrument to measure either concept. Hence the aim of this research was to develop and provide the initial empirical testing results of the self-administered Relationship Competence and Relationship Intelligence Assessment Scale. This scale attempts to measure family relationship competence and is based on the Relationship and Family Competence Training Model. The classical procedure for testing validity was conducted focusing on the three main types of validity: content, construct, and criterion (predictive) validity, these were preceded by face validity. To test construct validity, we used a convenience sample of 310 individuals, aged 19 to 63 years, residing in Curaçao, using pre- and post-intervention assessments. The participants were assigned to distressed and adjusted groups. A quasi-experimental Solomon four-group design was adopted, and data were analyzed using the planned contrast for a one-way analysis of variance. Statistically significant score increases were observed for marital satisfaction with effect sizes (Cohen's d) of 2.18 and 4.44 for the distressed and adjusted groups, respectively, indicating construct validity. An internal consistency test and confirmatory factor analysis were also conducted to confirm the structural validity and reliability of the 109-item scale. Finally, structural equation modeling was conducted to test the overall goodness of fit. The internal consistency of the Relationship Competence and Relationship Intelligence Assessment Scale reported a Cronbach's alpha coefficient of .992 and provided evidence of construct validity and overall fit. This study has pivotal implications for intervention treatment approaches, couples therapy, and development of MRE programs. It provides mental health professionals with a validated assessment or relationship diagnosis tool for formulating an effective treatment or training plan.

**Keywords:** Competence, Relationship Intelligence Scale, Relationship Competence, Validation

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## 1. Introduction

The matrix for durable relationships and uncovering the most critical determinants of divorce continue to be top priorities for researchers, especially considering the high worldwide prevalence and the “pandemic” scope/proportion of divorce. Unfortunately, divorce has been defying marriages successfully for the last five decades in most cultures, challenging proposed solutions and therapists' interventions. Contradictory reports regarding the results of couples therapy

[1-3] and even non-academic (but highly respected) sources claiming that the relationships of 25–38% of couples are worse following therapy [4], highlight the need for more research and proposed solutions.

In the Dutch Caribbean, or in Curaçao more specifically, the divorce rate is at an alarming rate of 73% [5]. This research assumes that relationship problems and divorce may be related to the absence of marital education and relationship competence, rather than being solely the result of classical and commonly accepted determinants, such as

parental divorce, financial illiteracy, women's employment, lack of communication, a short courtship period, and personality differences. These could be considered symptoms that, if properly addressed (e.g., by attending competency-based marital/relationship education programs), it would minimize treats for relationship durability.

In recent decades, marriage and relationship education (MRE) programs have been recognized as potentially effective preventive measures and potent treatment interventions that could reduce the incidence of divorce [6-8]. In the Dutch Caribbean context, no comparative studies regarding the effectiveness of MRE have been performed until recently [9]. In addition, until recently, neither a validated competence-based MRE program nor a validated instrument have existed to assess couples' relationships or guide researchers, mental health professionals, and policymakers in providing relationship guidance to prevent divorce.

This research aims to assess the validity of a self-administered scale (i.e., potentially new "diagnostic instrument"), based on the relationship and family competence training model (FCTM), hereinafter also referred to as the relationship intelligence training model (RITM). This scale assesses how well couples master the 12 pivotal competencies for relationship durability and relationship intelligence. This is the second report on the validation of a prior MRE program named "Profile of successful and durable relationship".

The FCTM/RITM is based on two basic premises. *First*, relationship problems tend to be related to lack of competency and relationship intelligence. When couples lack certain competencies, conflicts tend to emerge structurally or constantly. Most of relationship troubles and problem can be traced to lack of competency and relationship intelligence. For example, when couples have complains such as "I do not feel anything for him/her anymore" or "we used to text, call, and talk all the time, but now the feeling of love has just faded away" (without trivializing the importance of analyzing for specific occurrences in relationships, potential childhood trauma, or other deep psychological analysis of the past relationships or home environment), we have noted that this can be translated as a "lack of ability to nurture love," which is Competency 2. In other words, the couple is unable to keep the flame of love alive and create and maintain a love-nurturing sphere, instead of a love-hostile environment, and are therefore incapable of taking the relationship from the initial phase to a more advance or demanding phase. Subsequently, training in and improvement of this competency may contribute significantly to solving a couple's relationship problems. Therefore, when experts assess relationship problems, it could be beneficial to attempt a new approach by translating or reinterpreting conflicts as a lack of the necessary competencies to provide another perspective on the problem (in addition to the traditional approach) and examine the use of other tools to mitigate the problem. *Second*, there are 12 competencies that are important contributors to relationship quality, satisfaction,

and durability. Mastery of these competencies can affect a couple's level of commitment, significantly increase marital satisfaction, and prolong marriage longevity. Therefore, a high level of mastery of the 12 relationship competencies is referred to as *relationship intelligence* which is pivotal for relationship durability.

### 1.1. The Competencies

Operationally, family competencies comprise *knowledge, attitudes, values, traits, and skills* that work toward enhancing family functioning. They enhance opportunities for the development and health of individual family members, and are based on egalitarian family norms as the foundation of a strong family ecology (Shanmugavelayutham, 2012). In sum, family competencies comprise the integration and activation of knowledge, attitudes, values, and skills that help improve family functioning.

### 1.2. Theoretical Rationale and Framework of the Scale

The Relationship Competence and Relationship Intelligence Assessment Scale (RCRIAS) is based on an eclectic theoretical framework, rather than undergirded by or restricted to any sole theory. The blind man and the elephant metaphor has guided the researchers toward the conceptual framework adopted here [10]. Broadly, this parable implies that, while an individual's subjective or objective experience can be true, such perceptions or experiences are inherently restricted or limited by the failure to account for other truths or a totality of truth. One theory alone may provide a fragmented view of the facts, while several theories might synergistically provide a better understanding of a phenomenon than a single proposal. It is worth mentioning, however, that even though the 12 competencies were based on several theories, systemic or family systems theory [11, 12] was predominantly consider as each competency was identified and defined. For example, the theories that underpinned the second competency, namely *love-fostering and relationship-nurturing capacity integrated with emotional intelligence and effective management of five love languages* are based on more than one theory. This competence is partially based on Sternberg's (1988) theory, which proposes the triangular concept of evolving love, suggesting that the development of love encompasses three components—passion, intimacy, and commitment. Therefore, couples should possess (1) *knowledge* of these three components. Additionally, couples should also be cognizant of manners that foster love, by mastering the love language their partners and family members prefer, according to the theoretical proposal of Chapman [13]. Knowledge must be completed with (2) the *attitude component*, suggesting that couples should demonstrate an attitude of fidelity and willingness to nurture their relationship by continuing to do what they did initially in the relationship to maintain excitement/passion. Further, the second competency incorporates (3) *skills* such as the ability to maintain a loving

sphere and manage the five languages of love, manage phases of love, and exhibit love characteristics, and (4) *traits* such as emotional intelligence [14, 15] with qualities such as self-regulation (e.g., self-control), intrinsic motivation, and empathy. These theories do not juxtapose systemic theory, which posits that each part of a family system can affect the entire system through action, or a lack thereof, and vice versa. A detailed theoretical review synthesis and table are available upon request. To be specific, the theories that underpinned the other eleven competencies will be provided upon request.

### 1.3. Theoretical Assumption to Be Tested for Construct Validity

Improvement in or mastery of family and relationship competencies (i.e., relationship intelligence) will increase marital satisfaction and commitment and contribute to relationship durability. Couples tend to feel satisfied and willing to continue a relationship when they have the “I’ve got this” feeling (i.e., feeling they have the relationship mastery skills/competencies). Conversely, a lack of family and relationship competence results in relationship meltdown due to a lack of several abilities. Marital satisfaction, marital commitment, and mastery of relationship competencies are interrelated and interdependent.

### 1.4. General Research Questions

- (1) Does the MRE program evaluated in this study significantly increase the marital satisfaction, relationship commitment, and relationship competencies of Curaçaoan couples?
- (2) Does the RCRIAS demonstrate structural validity, reliability, and overall fit to the theoretical model?
- (3) Does the RCRIAS demonstrate construct validity?

### 1.5. Hypotheses Related to Construct Validity

*Hypothesis 1:* Couples who participate in the PDSC program will achieve increased satisfaction level scores on the Dyadic Adjustment Scale (DAS) post-intervention, compared to pre-intervention scores.

*Hypothesis 2:* Couples who participate in the PDSC program will improve their relationship competency scores on the RCRIAS post-intervention, relative to pre-intervention scores.

*Hypothesis 3:* Couples who participate in the PDSC program will achieve significantly increased commitment scores on the Rusbult Commitment Scale (RCS) from pre- to post-intervention.

### 1.6. The 12 Competencies That Comprise the FCTM/RITM and Are Measured by the RCRIAS

The procedure for building a theoretical case for the FCTM and RCRIAS included three parts. *First*, we conducted a comprehensive theoretical literature review in which we explored, evaluated, selected, and compared most relevant extant theories. Additionally, we searched,

examined, and critiqued determinants of divorce, risk factors, determinants of long-term relationships, protective factors, and the most documented challenges couples face and compared them among several cultures. *Second*, we conducted qualitative interviews with mental health professionals, psychologists, and relationship experts. *Third*, we consulted the population of interest in Curaçao regarding themes and topics they consider to be the most necessary for couples. This comprehensive approach was necessary due to the complexity of the research project.

Following this procedure, 12 potential themes emerged which were developed into constructs and later formulated as pivotal competencies for couples. These pivotal competencies for relationship durability are as follows:

1. *The capacity to commit and achieve both personal growth and character development as a marriage undergoes the stages of development.* Commitment, which is manifested in daily actions to increase relationship duration, is important for sustainability, as is the capacity to weather phases in a marriage motivated by the internal locus of control. The internal locus of control tends to assure personal growth and strengthen or promote the development of character. Good character is related to happiness (well-being) and equips couples with characteristics and tools to recurrently make each other happy, which is why one aim of marriage is assumed to be the development of character. Commitment, as a pivotal component of marital durability, has been particularly investigated and documented in many previous studies [15-17].
2. *Love or relationship-nurturing capacity, integrated with both emotional intelligence and the ability to take a relationship past the initial stage to more advanced/demanding stages.* Couples with this competency are able to comprehend, manage, or speak the five love languages of Chapman [18], and possess the capacity to understand and regulate their mood and emotions and adapt and control their impulses. They can display the basic characteristics of love and create a love-nurturing sphere instead of a love-hostile environment. They are able to take love beyond the initial stage into the more advanced and demanding stages. Love is a fundamental element for sustainability, longevity, and happiness in a marriage, and has been frequently explored in previous research [19-24].
3. *Family life Cycle Management.* Effective management of life development stages demonstrating adaptability and foresight. Couples should know the phases that marriages undergo and be able to respond to the demands and challenges of each stage. The Family Life Cycle has emerged consistently in extant research and literature [25-27].
4. *Family planning and home management and leadership.* This competency implies that a couple should be literate in family management, possessing skills such as: (a) the ability to create a functional

structure that optimizes internal functioning; (b) the ability to make plans, schedule activities, establish goals, assign roles/ distribute household tasks, and manage them efficiently; and (c) time management and comanagerial ability. Couples should be able to display egalitarian management [28-32].

5. *Personality difference management, which implies competence in handling different temperaments / personalities.* Couples should be able to successfully cope with different personalities and temperaments; and be capable of making plans while considering the needs of others with different personalities than their own. They should perceive personality and temperament differences not as defects or liabilities, but as assets. The concepts of personality and marital satisfaction have been studied for decades, and emerged in the pilot study as pivotal, as well as in some extant studies [33-37].
6. *Communication, problem-solving, and conflict resolution abilities.* This competency implies the capacity to communicate effectively, assertively, tactfully, and openly. This implies the ability and willingness to both prevent and solve problems. This can be achieved by knowing the escalation ladder theory and possessing the capacity and skills to intercept the escalation process of conflicts [38, 39]. Communication, which includes both aspects process and contend, is one of the most critical factors that contribute to sustainability, health, and happiness in a marriage. [40-46]. It emerges as pivotal element for durability both literature and qualitative interviews.
7. *Gender difference management/gender intelligence.* This implies an understanding of the complementary roles of men and women. It includes the capacity to effectively cope with and manage gender differences. Men and women should be able to see differences as potential assets in a relationship rather than defects that the other person possesses. [46, 47].
8. *Generate healthy family characteristics, resilience and functionality.* Lack of knowledge and relationship skills regarding the characteristics of a healthy family deprives potential couples and families from becoming happy [48, 49]. Knowledge and skills to generate healthy family characteristics is a compass that helps families achieve their goal of living “happily ever after;” it acts as a navigation plan for couples and helps them keep on track and weather storms together.
9. *Resource and financial management competency.* This encompasses the capacity to make and stay on a budget, and the ability to augment assets, make plans, and establish both short- and long-term goals and achieve them. It also includes the ability and willingness to adjust one’s desires to match one’s income. In sum, financial literacy. Financial management has been researched for decades and shown to be critical for longevity in a marriage [50-52].

10. *Sexuality and intimacy management competence.* This includes the capacity to consistently satisfy one’s partner and maintain a passionate sexual life as the culmination of intimacy. It implies complete mastery of one’s sexuality, which may be conducive to preventing major marital challenges, including infidelity and pornography addiction. [53-59].

11. *Parenting proficiency and competency.* This includes the ability to stimulate children’s development, so they might be able to self-govern and be productive members of society. This skill has also withstood the test of time and been shown in extant research to be a critical element to sustainability, longevity, long-lasting health and happiness in a marriage. [60, 61].

12. *Mastery of spirituality and a purpose-driven life.* This includes being productive, churchgoing, religious people, with equanimity and well-balanced character, who are connected to and serve society. Families who live purpose-driven lives, have contribution goals instead of self-interest goals and have ecosystem motivation rather than egosystem motivation [62, 63]. Spirituality and religiosity are not only intertwined but also an inextricable part of the family’s life, value system, daily activities, and cosmovision [64-66].

When couples master these 12 competences, they are considered relationship intelligent couples, as we define *relationship intelligence as possessing the ability to nurture and maintain a relationship healthy and exciting beyond its initial stage. It includes having family hardiness quality, family management capacity, the ability to cope with differences such as personality and gender differences, and the ability to generate healthy family characteristics due to positive relationship dynamics and emotional intelligence. It also encompasses the capacity to master intimacy and satisfy one’s partner consistently, accompanied by the ability to successfully manage finances and resources. Relationship intelligence comprises the ability to learn, understand, make judgments, and adapt successfully to different relationship situations and family challenges.* The competencies discussed above are an integral part of the construct we used as relationship intelligence for the purposes of this study. Couples with relationship intelligence tend to have more durable relationships that are accompanied by satisfaction and a sense of commitment.

## 2. Method

The aim of the self-administered scale examined in the present study is to (a) to determine if the individual mastered the basic competencies for a sustainable relationship, (b) to assess relationship intelligence and the couple’s capacity to comply with the demands couples typically face when they are married or cohabitating, (c) to assess mastery of competencies by evaluating couples’ knowledge, skills, attitudes, and traits, and (d) provide couples with an additional marriage readiness or durability potential checklist. The aim of this research was to evaluate validity of

the self-administered scale mentioned above.

### 2.1. Inventory Development

The classical procedure for testing validity was conducted focusing on the three main types of validity: content, construct, and criterion (predictive) validity. These validity assessments were all preceded by an assessment of face validity. The validation was conducted in three phases following a seven-step process approach. The three phases were as follows:

Phase I: Construct development/definition and item generation.

Step 1: Theoretical model development and proposal.

Step 2: Content domain identification and construct formulation.

Step 3: Item generation.

Phase II: Validation process including face, content, and construct validity. This avoiding to underutilize techniques that provide evidence that items represent the focal construct it purports to measure.

Step 4: Content validation or content adequacy assessment, which includes face and content validation.

Step 5: Construct validity – experimental approach using the Solomon four-group design (including scale administration, data collection, and preparation for later analysis).

Phase III: Internal consistency, confirmatory factor analysis (CFA), and structural equation modeling (SEM).

Step 6: Internal consistency evaluation.

Step 7: CFA

Step 8: SEM.

The instruments used for data collection were (1) Dyadic Adjustment Scale from here onward referred to as DAS, we used it for Marital Satisfaction measurement, (2) Rusbult Commitment Scale (henceforth referred to as RCS), for commitment measurement and (3) Relationship Competence and Relationship Intelligence Scale here on referred to as RCRIAS for competency and relationship intelligence measurement. Please consult prior article namely, *Profile of durable and successful marriages: A new competency-based marital education program* for details regarding these instruments, the data collection procedures, the samples, and other research design and analysis information.

### 2.2. Phase I: Construct and Item Generation

Scale development was approached from two perspectives, using both the deductive approach, beginning with a theoretical proposal based on several extant theories, and an inductive approach that is generally used when a new phenomenon with little research on theory may exist (e.g., meager theoretical support exists regarding relationship competence) according to Hinkin, Tracey, and Enz [67]. Hence, for the first scale development phase, both desk research and field research approaches were used. The desk research focused on content domain specification, and for this, a theoretical literature review approach (as previously

discussed) was used. After the construct and competencies were defined, questions were generated by three experts. The initial pool consisted of 132 items, which we revised and screened through an elimination process that included qualitative item analysis, in which experts compared the items with constructs and assessed and scored the item using the content validation index (CVI), among other approaches. This procedure was followed to develop the final version.

### 2.3. Phase II: Validation Process Including Face, Content, and Construct Validity

The validation process included *face validity*, wherein 23 doctoral students in family life education and master's students in family relationships screened or assessed the instrument. Subsequently, five judges (e.g., relationship experts) assessed the instrument for *content validity*, focusing on whether the operationalization reflected the constructs well. Additionally, prior to the administration of the test, it was again exposed to the scrutiny of a methodologist at Montemorelos University, family experts, and the thesis assessment team (advisors). Two pilot studies were conducted, the first with 130 participants (in Mexico), and then the second with 109 participants (in Curacao) who responded to the last version with one additional item (i.e., 109 items). Finally, the instrument was administered to a sample of 310 participants to assess *construct validity*. This study used the intervention study approach, which is a well-known method to evaluate construct validity [68-70]. In intervention studies, a group with low scores in a certain construct are assessed, subsequently instructed in the construct, and re-assessed to evaluate development and demonstrate a test's construct validity. If the difference between the pre-test and post-test is significant after the group is instructed in the construct, it is considered to be evidence of construct validity [68, 69].

In addition to the intervention study approach, the scale's construct validity was also tested by examining the relationship between relationship competency scores and relationship satisfaction and commitment, inasmuch as the three variables should theoretically be related. Experts have suggested that construct validity may be established by examining the theoretical relatedness of a construct that should produce similar results [71]. Theoretically, high scores in the relationship competence domain should produce high levels of satisfaction and commitment. When couples have the "I've got this" feeling (i.e., in control and successfully managing marital issues and functionality), they tend to commit and experience satisfaction. Hence, construct validity could be established by examining the relationships between marital satisfaction scores and other related variables/constructs, such as commitment (e.g., measured by the RCS) and marital satisfaction (e.g., measured by the DAS). For the last item on the RCRIAS, couples indicated their level of satisfaction in their relationship, and this was compared to the DAS. Accordingly, the participants, were administered the DAS, as developed by Spanier (1976); this pre-test aims to measure their level of marital satisfaction and classify couples as in distress or adjusted, which was later re-

assessed after couples were instructed in the FCTM/RITM. The RCS was also used as part of the pre- and post-test baseline and to evaluate if couples' commitment levels increased after instruction.

The sample (n=310) was divided into several groups: the distress group (n=54), the adjusted group (n=102), a control group who took the pre- and post-test without the intervention (n=50), and a second control group, which was the post-test only group (n=64). Additionally, a third control group (n=40) was formed after 2.5 years to be compared with follow-up measurement after 2.5 years of the above-mentioned experimental groups 1 and 2. This was an attempt to use the Solomon four-group design to test construct

validity. The adjusted and distress groups consisted of participants who scored 92 or above or below 92 on the DAS, respectively. Each participant has given their consent in the Smart Family Convention organized specially for this research. After the pre-test, participants took part in an intervention consisting of 9 sessions of 2.5 hours of instruction and exposure to the FCTM/RITM, which is a competence-based MRE program named "*Profile for Durable and Successful Couples*" (PDSC). After 21 total hours of instruction the groups were administered the post-test to assess participants' potential improvement in each of the 12 competencies in relation to competence or relationship intelligence improvement.

**Table 1.** Solomon four-group design for construct validity assessment.

Solomon Four-Group Design					
	Group	Pre-obs.	Indep. Var.	Post-obs.	Follow-up after 2 years
(S)	E1	O1	X	O2	O3
(S)	E2	O1	X	O2	O3
(S)	C1	--	X	O2	
(S)	C2	O1	--	O2	
(S)	C3	--	--	--	O1

Note: S, sample; E1, experimental group adjusted; E2, experimental group distress; C1, control group post-test only with intervention; O, observation or pre-test and post-test; Indep. Var: independent variable or experiment; C2: control group with no intervention; C3: control group with no pre-test and no intervention-only post-test after 2 years. The dependent variable was the development of the marital and relationship competencies.

The collected data were analyzed using the planned contrast for One-Way ANOVA, allowing for a comparison between the pre- and post-intervention results for each group.

#### 2.4. Description of the Relationship Competence/Relationship Intelligence Scale

The RCRIAS contains 109 items. This large number was required to capture the richness and multidimensionality of the variables. The four dimensions of each competence namely skill, knowledge, attitude and traits; will be discussed in a next article because of the scope of this article. The items are in the form of statements and divided into 12 sections, with approximately 7–14 items (statements) per section. Each section is designed to assess the presence and/or development of one competency. Responses are provided using a 7-point Likert-type scale. Researchers have suggested that 5–7 response point scales yield better quality data than scales with fewer response points [72]. Given that a well-formatted survey is easier for respondents to read and complete [73]. And reduces measurement errors [74], this questionnaire was professionally formatted to increase response rate and decrease measurement errors.

#### 2.5. Scoring of the Instrument

This self-report questionnaire took approximately 25 minutes to complete. The scoring system consisted of adding the points for all responses, with the sum representing the final score. Items worded negatively for the construct were reverse coded and scored (e.g., Items 44 and 52). The maximum score was 756, and a score exceeding 454 indicated that the participant has mastered the competencies

and reflected relationship intelligence. If the participant scored below 454, it could be indicative of "relationship competence deficiency," and the participant was recommended to seek help through therapy or a competency based marital education program to work on underdeveloped competencies. The "relationship competence deficiency diagnosis" is not considered a final sentence but rather an invitation for training to become proficient in the competencies couples currently lack.

#### 2.6. Phase III: Internal Consistency and SEM (CFA)

Cronbach's alpha was used for internal consistency assessment. Subsequently, Confirmatory Factor Analysis (CFA) and Structural Equation Model (SEM) were used to assess the theoretical relationships among the variables and model fit. These techniques were used for the following reasons: (1) to display the interaction among latent constructs and observable variables, (2) to present the effects of the independent variables on the dependent variables, (3) to test the theoretical proposition regarding how constructs are linked and the directionality of significant relationships, and (4) to increase robustness and decrease effect size disputability in the research model chosen for validation of the instrument and program.

The research questions used to assess interaction, directionality and model's fit using CFA and SEM were as follows:

1. Are marital satisfaction, commitment, and relationship competence related?

Our proposed theory is that these three variables are related. Therefore, the following hypotheses is proposed:

*Hypothesis 4: Marital Satisfaction, Commitment and*

*Relationship Competence/Relationship Intelligence are significantly related.*

2. Is the relationship between these variable significant and interdependent?

Our proposed theory is that the three variables are interdependent. Therefore, the following hypothesis is proposed.

*Hypothesis 5: Marital Satisfaction, Commitment and Relationship Competence/Relationship Intelligence are interdependent.*

3. Does the theory fit the model?

Our proposed theory is that increase in relationship competence will significantly increase marital satisfaction and commitment.

SPSS 21 and AMOS 20 software were used for CFA and SEM, respectively. For internal consistency, Cronbach's alpha was used; for SEM, the indicators used were chi-square, normed chi-square, comparative fit index (CFI), goodness-of-fit index (GFI), and root mean square error of

approximation (RMSEA). We used these indicators based on a sample size of 310 general participants and data type, which were normally distributed with ranges of acceptable scores to determine good model fit. The significant threshold used were p-value of  $< 0.01$ .

### 3. Results

#### 3.1. Internal Consistency of the RCRIAS

When the instrument was tested for sample size appropriateness, the results were acceptable (according to the minimum required value of .6) for identification of the 12 competencies. The Kaiser–Meyer–Olkin measure (KMO) was .661. Subsequently, analyses were performed for each competency, and KMO values ranged from .753 to .904. The explained variance test was conducted for the whole instrument was .725 (72%). See Table 2 for Cronbach's alpha and KMO values for 130 participants.

**Table 2.** Comparison between Cronbach's alpha for the pilot ( $N=130$ ) and KMO results of sample  $N=372$ .

Competency	Cronbach's Alpha 1 <sup>st</sup> Pilot –test/(#Items)	KMO 1 <sup>st</sup>	Chi-square 1 <sup>st</sup>	Sig.	KMO 2 <sup>nd</sup>
Competency 1	.711 (11 Items)	.753	373.47	.000	.948
Competency 2	.825 (9 Items)	.831	405.7	.000	.930
Competency 3	.865 (5 Items)	.824	317.2	.000	.930
Competency 4	.869 (10 Items)	.904	779.6	.000	.946
Competency 5	.753 (8 Items)	.757	269.11	.000	.926
Competency 6	.826 (14 Items)	.831	766.6	.000	.947
Competency 7	.877 (9 Items)	.861	617.9	.000	.957
Competency 8	.887 (11 Items)	.887	746.3	.000	.950
Competency 9	.896 (10 Items)	.876	715.8	.000	.955
Competency 10	.930 (10 Items)	.836	440.3	.000	.919
Competency 11	.886 (6 Items)	.905	951.0	.000	.878
Competency 12	.712 (5 Items)	.746	175.5	.000	.806

With the aim of conducting a confirmatory but more rigorous analysis, a secondary validation test was conducted in Curaçao, the Dutch Caribbean. The same test, with the exception of one additional item, was administered to a sample of 372 participants. More information regarding sample will be provided on request. This sample was appropriate based on literature review confirmation [75, 76]. Cronbach's alpha was .965 for the 109 items. The KMO value was .971.

#### 3.2. Hypothesis Testing for the Construct Validity of the RCRIAS

The first operational hypothesis for this study stated:

*Hypothesis 1: Couples who participate in the PDSC program will achieve increased satisfaction level scores on the Dyadic Adjustment Scale (DAS) post-intervention, compared to pre-intervention scores.*

One-way ANOVA result for hypothesis testing 1 was statistically significant ( $F(4, 367) = 296.80, p < .001$ ). In general, the model reported an eta-squared ( $\eta^2$ ) of .71 and a 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 participate in the PDSC program will improve their relationship competency scores on the RCRIAS post-intervention, relative to pre-intervention scores.*

The ANOVA was statistically significant ( $F(4, 367) = 562.14, p < .001, \eta^2 = .84$ ). According to the comparison results (see Figure 1), 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 adjusted group ( $t(182.10) = 11.59, p < .001, d = 1.62$ ). With respect to Hypothesis 2, the control group showed no significant differences between pre- and post-intervention scores ( $t(125.78) = .93, p = .35$ ).

When the follow-up measurement was conducted two and a half years after study completion, the findings pertaining to the adjusted group confirmed that the previously significant benefits remained, confirming that the effects of the intervention were sustained long-term. Moreover, the scores 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 were sustained. However, a significant (albeit small) decrease was noted in the level of competency

mastery ( $t(39.96) = 2.04, p = .048, d = .50$ ). Additionally, when the post-test scores of the adjusted group, distressed group, and post-test only with intervention group were

compared, there were no significant differences. See Table 3 for details regarding the significant increases in each competency.

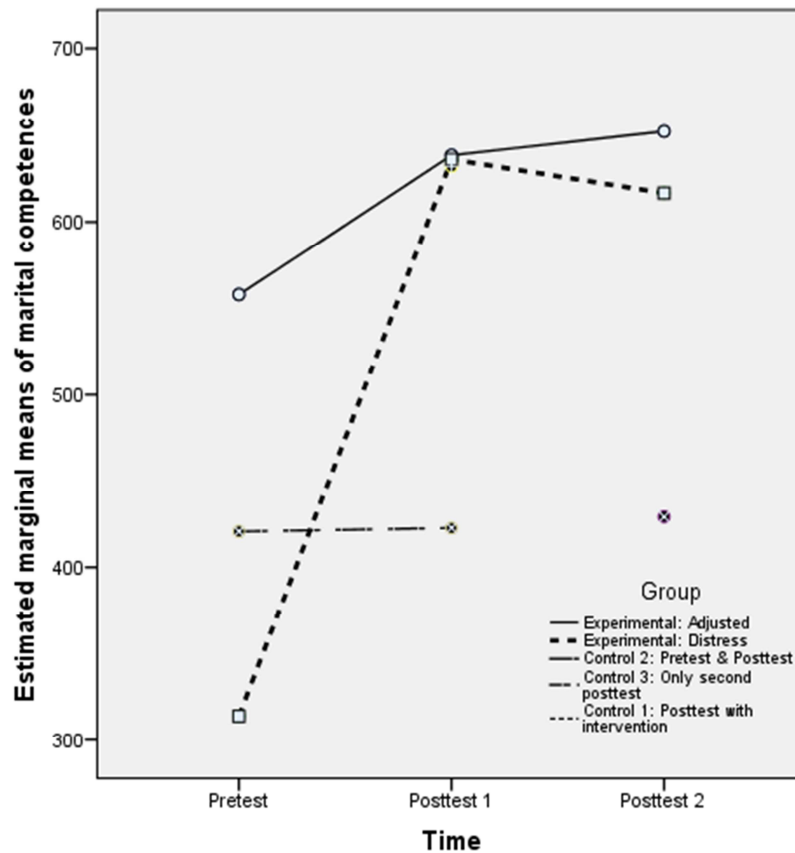


Figure 1. Mean family competency scores among groups.

*Hypothesis 3: Couples who participate in the PDSC program will demonstrate significantly increased commitment scores on the RCS from pre- to post-intervention.*

The ANOVA was statistically significant ( $F(4, 367) = 562.14, p < .001; \eta^2 = .84$ ). According to the comparison results (see Figure 1), there was a significant increase

between the pre- and post-intervention results for both groups in their commitment levels ( $F(9, 600) = 346.58, p < .001$ ). The significance was 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 ( $t(118.71) = 14.13, p < .001, d = 1.98$ ).

Table 3. Summary of the construct validity results (MRE program outcomes pre- and post-intervention).

MRE program outcomes according to each relationship and family competency								
Measure	Pre-test M SD	Post-test M SD	Df	t value	Sig	Effect Size Cohen	Effect size / $\eta^2$ =Eta square	Power
Commitment to personal improvement and management of the stages of marriage	4.60 1.20	6.18.47	153	-16.92	.000	1.732	.652	1.000
Emotional and social intelligence - ability to nurture love in a relationship	4.53 1.09	6.01.471	153	-16.54	.000	1.757	.641	1.000
Management of developmental life stages	3.80 1.387	5.74.056	153	-16.00	.000	1.976	.626	1.000
Family management and home planning	3.43 1.25	5.29.729	153	-16.00	.000	1.818	.626	1.000
Mastery of personality differences	4.59 1.15	5.96.528	153	-15.23	.000	1.527	.603	1.000
Effective communication and conflict resolution	4.46 1.15	5.86.431	153	-14.81	.000	1.608	.598	1.000
Mastery of gender differences/Gender intelligence	4.29 1.52	5.97.560	153	-14.38	.000	1.467	.575	1.000
Management that generates characteristics of a healthy family	4.12 1.54	5.76.512	153	-13.49	.000	1.429	.543	1.000
Resource and finance management	3.91 1.52	5.60.643	153	-12.90	.000	1.462	.521	1.000
Sexuality and intimacy management	4.99.945	6.05.526	153	-14.68	.000	1.375	.585	1.000
Mastery of parenting	4.82 1.055	5.84.680	153	-12.69	.000	1.150	.513	1.000
Religious and spiritual mastery	4.95 1.172	5.94.615	153	12.01	.000	1.053	.485	1.000



### 3.3. CFA Results

The CFA on the data for all 372 participants was performed in four stages, with the aim of ascertaining different validity characteristics. This four-stage procedure was an iterative assessment and analysis process performed in a gradual manner until the whole instrument fits the proposed model.

In the first stage of analysis, all 109 items and 12 factors were considered. Based on the findings, the following four factors were identified, namely Competence 10, Capacity to consistently satisfy one's partner sexually and manage intimacy (i.e., SIM = sexual and intimacy management); Competency 9, Successful financial and/or resource management (i.e., FRM = financial and resources management); Competency 8: ability to foster, stimulate, and nurture healthy family characteristics (i.e., GHFC = Generate Healthy Family characteristics); and Competency 4: Family management and leadership/planning (i.e., FMP = Family Management and Planning). The KMO value for the 12 factors (competencies) was .971, and they explained 72.9% of the total variance, while the four identified factors explained 52.9%. As shown in Table 4, there are nine items (22%) with

factor loadings less than .3, which weakens the factor. However, when all the items are considered, five items with factor loadings exceeding .3 can be identified. This implies that GHFC is the strongest and FMP is the weakest.

For the second stage of the validity analysis, 68 items retained in the previous stage were considered, along with eight factors. For the eight factors, the KMO value was .970 and the explained variance was 71.0%, while for the three identified factors, it was 53.0%. These three factors were: Competency 11, Parenting capability (i.e., PSCBN = Parenting, Satisfaction of Children's basic needs); Competency 6, competent communication and problem-solving capacity (i.e., ECCPM = effective communication, conflict prevention and management); and Competency 3, adaptability and foresight, which implies being able to manage and cope in a competent way with the stages families undergo and the relationship lifecycle, as well as ability to anticipate and deal with challenges and potential stressful situations (i.e., FLCM = Family lifecycle management). Here, only one item was an outlier, because the factor loading was below .3. However, it is worth noting that some of the items pertaining to this factor had loadings that exceeded .3.

**Table 4.** Factor loadings of competencies GHFC, FRM, FMP, and SIM.

	<b>GHCF</b>	<b>FRM</b>	<b>FMP</b>	<b>SIM</b>
GHCF 70 We express appreciation for each other; in other words, we validate others...	.760	.305	.259	.147
GHCF 72 We take time for each other on at least a weekly basis.	.719	.410	.219	.131
GHCF 68 We have...the characteristics of a healthy family.	.713	.360	.260	.088
GHCF 73 We are connected with the community providing help support – we...	.697	.337	.131	.158
GHCF 71 We are able to adapt ourselves to new situations.	.691	.412	.180	.127
GHCF 69 We have structure in our marriage...	.682	.378	.310	.131
GHCF 67 I know the characteristics of a healthy family.	.651	.375	.203	.146
GHCF 74 We have customs or rituals, which are typical of our family.	.632	.310	.169	.076
GHCF 77 When we have problems, we know our limitations...	.614	.324	.205	.152
GHCF 76 We love each other unconditionally; you do not...	.585	.234	.277	.253
GHCF 75 We instill values in our children.	.179	.161	.109	.183
FRM 85 We have an emergency fund.	.420	.424	.515	-.003
FRM 79 In our family meeting, we plan everything that has to do...	.443	.399	.513	.206
FRM 81 We maintain ourselves on our budget, abstaining from buying impulsively.	.456	.390	.561	.220
FRM 84 We work on increasing our income instead of focusing only on...	.442	.371	.527	.199
FRM 83 I know different ways to economize/save.	.449	.367	.500	.246
FRM 82 We can distinguish between that which is desirable and...	.471	.347	.505	.134
FRM 86 We carefully evaluate our motivation before proceeding to...	.439	.305	.540	.111
FRM 80 We make a budget.	.327	.297	.634	.160
FRM 87 We have a detailed view of/insight into our expenses.	.590	.273	.514	.218
FRM 78 We have both short- and long-term financial goals.	.544	.226	.456	.177
MFP 33 I have a clear idea about how my time is being used. I know...	.413	.406	.372	.039
MFP 35 We have a family meeting where we discuss, make plans, and deal with family issues at least every week.	.508	.483	.334	.128
MFP 34 We are constantly under stress because of the many things that need to be done.	.191	.414	.327	.172
MFP 32 I can make a management plan...make it happen.	.440	.467	.326	.124
MFP 29 We have in our family an itinerary or agenda with the most important family activities.	.369	.725	.302	.104
MFP 30 Due to our effective planning, we manage to have time for every important thing that must be done.	.290	.773	.259	.086
MFP 31 We have a clear "overview" of what should be done in our family and achieve our goal of doing it all.	.512	.519	.258	.147
MFP 27 We have clearly defined roles; in other words, tasks are well defined or assigned...everybody in our family knows exactly what they must do...	.437	.541	.245	.126
SIM 93 I know what management is and can manage things in my family competently.	.113	.062	.068	.754
SIM 91 My partner reaches orgasm on regular basis.	.334	.308	.052	.654
SIM 95 My partner reaches orgasm normally.	.206	.111	.128	.629
SIM 90 I know the erogenous zones of my partner.	.029	.220	.170	.597
SIM 96 I can openly tell my partner what I like or what I want him/her to do with me.	.589	.130	.306	.488
SIM 89 I know the phases that sexual relationships undergo and can competently manage all of them.	.447	.292	.320	.435
SIM 88 I can speak openly about sex with my partner without any inhibitions.	.473	.338	.296	.351

Following the preceding stage, 43 items remained and, together with five factors, were considered in the third stage of the validation analysis. The test yielded a KMO value of .967 and an explained variance of 70.0%. In contrast, the two factors that were identified explained 35.1% of the variance. These factors were Competency 7, management of gender differences (i.e., GDM = Gender Differences Management), and competence 5: ability to understand and capacity to deal successfully with different personalities (i.e., PDM = personality differences management). All the items had factor loadings higher than .3, particularly those that were grouped together.

For the fourth stage, 26 items and three factors remained. The KMO value was .950, and the explained variance was

66.3%. Here, three factors were identified: Competency 12, Religious and spiritual mastery (i.e., SM = Spiritual Mastery); Competency 2, Effective management of emotions (i.e., emotional literacy), possessing stability and emotional/social intelligence, and the romantic skills or ability to remain committed and emotionally engaged (i.e., MEIEA = Emotion Management, Emotional Intelligence, and Love Management), and Competency 1, commitment to personal development and improvement, capacity to commit and maintain a relationship as it undergoes different phases (i.e., LCMMS = Leadership, Commitment, Maintainment of Marriage through Stages). Only two items were outliers; however, even the factors that were affected by these issues included five items with sufficient factor loadings.

**Table 5.** Factor loadings for competencies PSCBN, FLCM, and ECCPM.

	PSCBN	FLCM	ECCPM
ECCPM 56 Communication between us is really good; in other words, I feel good about the way we communicate...	.752	.373	.190
ECCPM 54 I can keep my ego out of the way when we communicate.	.620	.357	.224
ECCPM 46 I know what may augment emotional tension hindering good communication between us.	.614	.392	.175
ECCPM 51 There is a balance of power. In other words, we make decisions together...no one in our family dictates or makes all the decisions alone.	.607	.384	.156
ECCPM 49 I have the ability/capacity to "short circuit" or "intercept" an issue that is being discussed.	.594	.447	.153
ECCPM 52 We always have conflict accompanied by a lot of tension in our relationship.	.587	.376	.230
ECCPM 53 We have methods to solve problems... that function effectively.	.527	.449	.068
ECCPM 47 I know how to stimulate the good type of communication, which prevents tension from building.	.523	.447	.175
ECCPM 44 We cannot speak to each other without it ending in an argument.	.513	.207	.192
ECCPM 45 I can speak openly to my partner. In other words, I do not have to hide my feelings at all.	.505	.386	.078
ECCPM 48 I have empathy capacity; in other words, I can put myself in the shoes of someone else and see things from his/her perspective (point of view).	.438	.483	.232
ECCPM 50 I know the reasons why conflict emerges.	.403	.466	.263
ECCPM 55 Communication between us is really good. I feel good about the way we communicate.	.093	.016	-.040
FLCM 25 I have a tentative plan for the stages/phases that my family will undergo.	.433	.719	.250
FLCM 22. I am prepared for the phases that families go through.	.397	.684	.188
FLCM 24 I know what to expect of every phase; in other words, I know what the typical problems and adjustments are that need to be made, in every phase...	.511	.666	.163
FLCM 23 I know exactly in which phase my family is.	.501	.567	.132
FLCM 21. I know the phases that families undergo (go through).	.485	.548	.073
PSCBN 103 I try to foster development of talents in my children.	.117	.182	.802
PSCBN 102 I play with my children because I know the importance of...	.279	.108	.746
PSCBN 99 I am able to satisfy the all five basic needs namely physical, mental, social, emotional, and spiritual needs of my children.	.253	.198	.680
PSCBN 98 I know what the basic needs of children are.	.211	.251	.555
PSCBN 101 I always try to "catch" my children when they are doing something positive to reinforce and reward them.	.659	.294	.511
PSCBN 100 Not only do I know different ways to discipline my child(ren) but I also use different methods.	.627	.302	.502

**Table 6.** Factor loadings of competencies GDM and PDM.

	GDM	PDM
GDM 64 I can accept the areas in which we are different and do not pretend or suggest that my partner is defective.	.714	.319
GDM 65 What I lack, my partner has; she/he really is my other half.	.702	.310
GDM 61 My partner and I complement/complete each other, she/he has exactly what I lack.	.673	.319
GDM 60 We actually celebrate our differences; in other words, we see these as "assets" (positive aspects that each one of us brings to our relationship). We don't see differences as defects.	.658	.335
GDM 62 I have knowledge regarding the areas in which men and women are different.	.604	.401
GDM 66 I have trouble when I think of continuing life without my partner; we are such a good team.	.604	.255
GDM 63 In the way I approach and deal with my partner, I always take into consideration the fact that we are different and independent beings.	.594	.399
GDM 59 We are happy and live happily despite our differences. We have a good relationship even though we have our differences.	.577	.399
GDM 58 The differences between partners cause us to argue adamantly and constantly.	.561	.314
PDM 42 I accept my partner's personality.	.506	.542
PDM 36 I know my partner's personality very well.	.182	.506
PDM 43 I do not treat my partner as defective just because she/he has another type of personality.	.578	.506
PDM 37 We make plans taking differences in personality under consideration...differences of every member of the family.	.419	.493

	GDM	PDM
PDM 41 I have a good bond and get along well with all the members of my family.	.553	.456
PDM 40 I know my partner's and my family members' weaknesses and virtues.	.373	.444
PDM 38 We do not negatively/unfavorably compare members of our family with each other.	.526	.401
PDM 39 Everybody possesses virtues and weaknesses in their personality...positive character traits and negative character or personality traits.	.316	.345

*Table 7. Factor loadings of competency LCMMS, EMEIL, and SM.*

	LCMMS	EMEIL	SM
LCMMS 1 We have both short- and long-term goals.	.794	.377	.097
LCMMS 9 I do everything I can for us to stay married and grow together (seek information, attend seminars, read books, and invest by putting in my effort).	.783	.394	.172
LCMMS 10 The aim of marriage is to foster character development, which consequently leads to happiness and intimacy.	.767	.306	.158
LCMMS 11 Choosing the right partner and developing competencies and skills for marriage is the secret to a sustainable marriage. In short, finding the right partner alone is not enough.	.761	.354	.145
LCMMS 2 We are aware of what the aim of marriage is.	.744	.424	.148
LCMMS 4 I am aware of the fact that marriage undergoes several phases.	.693	.423	.187
LCMMS 3 I dedicate more attention to the development of my character and personal growth than try to change or look at the character defects of my partner.	.623	.501	.033
LCMMS 8 My marriage is what I have dreamed of.	.575	.578	.027
LCMMS 7 I do everything within my power to satisfy and comply with the expectations that my partner has regarding marriage.	.392	.647	.205
LCMMS 6 I am aware of my partner's expectation (i.e., desires) related to marriage.	.361	.692	.193
LCMMS 5 I am prepared for each coming phase that my marriage/relationship will undergo.	.271	.620	.226
EMEIL A20 I can recognize and help my partner deal with his/her emotions.	.290	.803	.104
EMEIL 19 I can recognize, control, and manage my emotions/feelings.	.196	.766	.180
EMEIL 18 I notice immediately when something is bothering my spouse and try immediately to solve or alleviate the problem/situation.	.152	.717	.177
EMEIL 17 I know what I should do to keep the passion/excitement alive in our relationship.	.429	.653	.171
EMEIL 15 I continue to do the majority of the loving things I used to do when we were in the courtship period after we got married.	.510	.599	.005
EMEIL 16 I make time at least once a week, for a minimum of one hour, to specifically dedicate my attention to my partner and/or to our relationship.	.562	.562	.054
EMEIL 13 I know the language and/or the way my partner prefers me to express love to him/her.	.563	.555	.190
EMEIL 14 I constantly focus on making my partner happy.	.664	.545	.071
EMEIL 12 Love is not only a feeling, but a conscious choice (it has its intellectual and choice dimensions).	.818	.359	.153
SM 107 Our religion does not hinder our efforts to make new friends (we have friends that belong to other denominations).	.077	.073	.789
SM 109 We teach our children the difference between right and wrong.	.087	.175	.609
SM 106 I can make a connection between biblical stories and their application today—my family can see the relevance of biblical stories and apply them in their daily life.	.536	.299	.603
SM 105 I regularly attend church services.	.562	.231	.580
SM 108 We work as volunteers for foundations, charities, and other organizations. We are connected to and involved in our community.	.632	.132	.322
SM 104 I regularly have personal devotional moments (daily).	.718	.134	.284

The analysis indicated that the instrument provided evidence of validity, since only 12 items deviated from their factors (i.e., competencies).

### 3.4. SEM (Theory Testing and Relationship Among Variables Results)

Further assessment and analysis of the data collected with the three instruments was performed to explore possible relationships among the explored variables. A correlation analysis was performed to assess potential relationship among the three core and latent variables, namely marital satisfaction, commitment, and family or relationship competences. The structural equation model was used to explore a potential relationship. AMOS version 20 was used, implementing the maximum verisimilitude (maximum likelihood estimation), as shown in Figure 2.

The chi-squared goodness-of-fit test model did not reach the required criterion level ( $p > .05$ ), according to the criteria established in the pertinent literature [77]. However, three additional criteria were also recommended by the authors of similar studies: CFI  $> .95$ , chi-squared/ df  $< 3$ , and RMSEA  $< .08$ . This scale Model Fit was assessed by 4 GOF Indices (Goodness of Fit Indices). The results were (1) Normed Chi-square = 1.72. The criterion for acceptance = less than 2 [78]. (2) RMSEA = .06 (Root Mean Square Error of Approximation is acceptable when  $\leq .06$  [79, 81]. (3) CFI = .97 Comparative Fit Index is acceptable when it exceeds 93 [82]. (4) GFI = .87 (Goodness of Fit Index Statistic is acceptable when close to .90 [83, 82].

Thus, the results of this study were tested against these additional criteria and acceptance was achieved. Consequently, the model was deemed to be a good fit to the

data and passed the acceptance tests. More specifically, the model demonstrated a clear relationship among the three core studied variables at the  $p < .001$  significance level. Moreover,

the effect size was strong, as the correlations exceeded .8. Consequently, it can be concluded that the three variables were highly correlated.

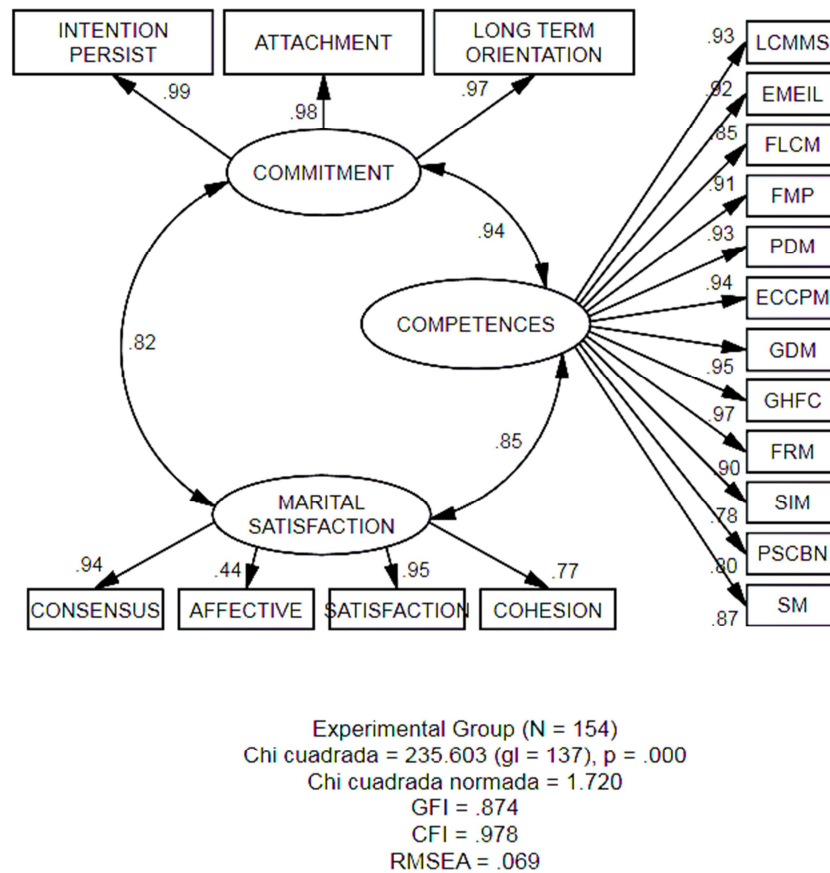


Figure 2. Structural equation model of the relationships among the three dependent variables.

The results yielded by these statistical tests indicate that the MRE program profile of successful and durable relationships significantly increased the 12 family and relationship competencies, enhancing their mastery of competencies among the intervention groups with effect sizes of 1.62 and 6.27 for the adjusted and distressed groups, respectively. An additional t-test was also conducted to measure the development per competence, in addition to global measurement of the 12 competencies. These findings were consistent with the results of the planned contrast ANOVA. Finally, the instrument was also assessed for criterion validity (e.g., predictive validity) to assess how the operationalization performs based on the theory. In sum, the operationalization's ability to predict what it corresponds to theoretically, namely, increased marital satisfaction. When the mean family competence score increased, the mean score for marital satisfaction increased, both as measured by the DAS and the self-report scale/item of the test. The correlation between the total RCRIAS score and self-scored given on the scale for marital satisfaction was .85 and the correlations between the RCRIAS and DAS and between the RCRIAS and RIM (measuring commitment level) were .85 and .95, respectively. Thus, meaningful correlations were reported between the three dependent variables.

## 4. Discussion

The three hypotheses for the construct validity assessment were supported, indicating that the scale has good construct validity. The two additional theorem/hypotheses which posited that the family competence variable (measured by the RCRIAS) is related to marital satisfaction and commitment were also supported. Family and relationship competencies are interrelated and interdependent, implying that when couples develop relationship competence, they tend to be more satisfied and committed. This may indicate that competence, satisfaction, and commitment are important components of relationship durability. This is because it makes more sense to commit when people are satisfied with their relationship, and people tend to be more satisfied when they feel that they have mastered relationship competence—they have the “I’ve got this” feeling. The positive results regarding construct validity could be due to the competency-based approach used in the Marital Education Program.

Additionally, the format, design, and other additional aspect which may be considered “cosmetic” (i.e., irrelevant) by some researchers could have contributed to the good response rate, among other aspects. Given that a well-

formatted survey is easier for respondents to read and complete [73], and reduces measurement errors, this inventory was professionally formatted. Each statement was driven by a specific goal, and attention was given to pivotal survey components that some experts, such as Bradburn et al., Dillman [74], and Fanning, have recommended: (a) cover page, (b) directions, (c) page design, (d) question order, (e) question grouping, (f) order effects, (g) navigational path, and (h) survey length and goal-oriented questions, affirmation, or assessment statements that synchronize with the competencies being assessed.

Whereas classical literature has suggested avoiding double-barreled questions, we used statements with clarifying components that, while some may appear to be double-barreled questions at first glance, closer expert analysis shows that they measure the “concept” and are regulated by a Likert scale as anchor. The statements used were in the form of sentences, which included clarifying notes. This is because some competencies required two or three elements in one phrase to indicate “competence.” Considering that we were assessing knowledge, attitudes, skills, and traits, we moved beyond the use of “simple questions” alone to the use of “statement-oriented items” or affirmations. Examples of these statements include “we have both short- and long-term goals” and “we have family meetings every week where we discuss, plan, and deal with family issues.” Here, we want to know if the family has family meetings, if these meetings occur every week, and if the family members discuss family issues and make plans. Even though discuss issues and making plan seems tautology it is not. These three aspects must be present for a perfect score of 7. In other words, to make the test robust and increase its accuracy, we used a 7-point Likert-type scale. This was done because, for example, in a case where only one of the elements mentioned in the statement is present in the family, instead of responding with “strongly agree,” the participant may respond with “somewhat agree” and consequently score 5 and so forth. Questions of this nature were Items 18, 20, 24, 25, 27, 28, 31, 32, 47, 49, 63, 69, 77, 84, 91, 99, and 103.

Further, we also included explicative questions, such as “we maintain our budget and do not buy impulsively.” Despite appearing to be double-barreled, we consider these questions to be (1) explicative in nature, (2) pivotal for assessment of multiple elements that comprise certain aspects/dimensions of competence, (3) statement oriented (i.e., worded as an affirmation), and (4) purposive and accurate, being confirmed to be clear to participants in the qualitative assessment in the pilot group analysis and scored well in the quantitative pre-assessment. Instead of assuming that the affirmation/scale statement is confusing, we assessed to be sure they were or they were not in our population and culture. Participants in the pilot study indicated their level of confusion by scoring questions during the face validation phase as (a) confusing, (b) understandable, or (c) completely understandable.

#### *Implications of the current research*

This study has pivotal implications for intervention treatment approaches, couples therapy, and development of MRE programs. It provides mental health professionals with an evidence-based checklist that can be used as an effective assessment tool. This checklist can be employed to assess readiness for marriage or the potential durability of existing relationships/marriages. Therapists can adjust and customize their therapeutic approach and strategy to better align with the needs of specific couples. Assessment and therapeutic interventions focused on developing the 12 competencies reported here could be instrumental in helping couples develop tools to propel their marriage toward happiness and sustainability. We found that *relationship intelligence* reflected in mastery of the 12 competencies explains why some families meltdown while others persevere. Couples or families with *relationship intelligence* have a family structure that propels them toward success and durability by responding successfully to challenges, problems, and other stressful events. Mastery of the 12 core family competencies that comprise relationship intelligence is key to successful, durable, committed, and highly satisfactory relationships. Thus, the FCTM, which underpins the current program, could assume a vital role as a complementary treatment/intervention tool, and should be implemented alongside conventional treatments to help couples cope with relationship challenges.

#### *Limitations*

One of the limitations related to construct validity process is that a non-random sample selection was used, 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. Additionally, based on pilot studies done both in Curacao Dutch Caribbean and in Mexico we may assume preliminarily that the instrument has potential to be used in other countries, however this need yet to be assessed and confirmed in further investigations.

The idealistic expectation for the instrument/scale to establish or report a Relationship Quotient (RQ) of the participant is in this phase beyond the scope of this research and intellectually unrealistic for the first phases. The RQ determination/ calculation will or could be part of future studies.

## 5. Conclusion

The RCRIAS is a valid and reliable self-administered assessment tool that can be used to evaluate couples' level of mastery of relationship competencies, relationship intelligence, and potential for relationship durability. This based on a construct validity assessment, CFA, internal consistency test (e.g., general internal consistency of Cronbach's Alpha = .992), and correlation analysis performed to assess potential associations among three core variables: marital satisfaction, commitment, and relationship competence. SEM was used to test the overall fit of the theoretical model (that underpinned the instrument), and the directionality. It ultimately revealed the validity and reliability of the assessment instrument. This research assumed that durable relationships tend to fit a certain profile and possesses or develop 12 pivotal competencies. A lack of these competencies may imply a greater risk of divorce and, conversely, the presence of these competencies implies relationship longevity. The RCRIAS could be instrumental in assessing presence or development of relationship competencies and provide perspective on the durability of relationships. The epicenter of divorce may be a lack of competence / relationship intelligence, as the mastery of interrelated competencies can increase both marital satisfaction and commitment, while a lack of these competencies is related to marital distress. The proposed competency-based training approach could re-draw the map for marital disintegration by resetting the norm (i.e., classical approaches to problem-solving), allowing for the chance to add proposals for solutions which are intellectually defensible, theoretically supported and empirically tested.

## Participants in This Research

All participants in this research have given their consent and have participated willingly.

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