

**Research Articles** 





# Validation of Romantic Partner Conflict Scale (RPCS) in Pakistani Married Couples: Establishing Measurement Invariance

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Supplementary Materials: Materials [see Index of Supplementary Materials]

# Abstract

The present study aimed to translate and validate the Romantic Partner Conflict Scale (RPCS) in Pakistani Married Couples. Forward-Backward Method was applied for translations into Urdu to establish conceptual equivalence and cultural relevance. A sample of 300 married couples was collected for construct validation of RPCS established through Confirmatory Factor Analysis with SEM with the confirmed factors of Compromise, Domination, Submission, Separation, Avoidance, and Interactional Reactivity (total of 37 items, 2 items were deleted). All subscales showed good internal consistency and composite reliabilities. Moreover, testing for measurement invariances across husbands and wives further confirmed the factor structure for dimensions of RPCS. Finally, further associations revealed that constructive conflict strategies of Compromise and Avoidance were positively associated with positive relational variables such as internal marital locus of control, constructive communication, marital quality, and intimacy, but were negatively correlated with demand-withdraw patterns, associations for destructive conflict strategies of Interactional Reactivity and Domination with these relational variables were revealed contrary to the constructive strategies. The present study revealed Separation and Submission as mixed strategies as they were positively associated with majority of positive and negative relational variables. Additional findings in case of demographic variables and implications for future research are discussed



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### Keywords

conflict, communication, marital quality, intimacy, marital locus of control

The utilization of proper conflict resolution strategies is crucial in identifying the future of the marriage. The divorce rate has been increasing in Pakistan such that in the years 2020 to 2023, 100–150 cases have been filed daily and over seven additional courts have been allocated for just divorce hearing cases (Ali, 2022; Ilyas, 2022). It is pertinent to address the determinants of dissolution of marriages and have culturally adapted assessment tools to seek which couples are utilizing constructive and destructive strategies of dealing with conflict, evidently leading to divorce. Hence, the present study aims to investigate whether the factor structure posited by Romantic Partner Conflict Scale (Zacchilli et al., 2009) upholds in Pakistani Culture and Marriages.

Relational conflict involves the discordance between couples (Putnam, 2013). Marital conflict has been a widely researched topic in relationships research (Aloia & Solomon, 2015; Cheung et al., 2022; Nisanci & Nisanci, 2023; Tasew & Getahun, 2021). Conceptual models that offered solution-oriented conflict strategies have been important in understanding factors related to relationship quality (Putnam, 2013; Wheeler et al., 2010), These solution-oriented strategies are characterized by effective communication between couples and these strategies are positively related to well-being (Marceau et al., 2015). Moreover, conflict strategies that involve controlling the other partner position is associated with decreased relationship satisfaction (Wheeler et al., 2010). Finally, hiding feelings or avoiding the conflict issues results in poor communication and poor marital quality (Wheeler et al., 2010).

The Enduring Dynamic Model and other behavioural theories postulate that couples having differential conflict styles could eventually lead towards dissolution of marriage (Caughlin et al., 2000; Huston et al., 2001). Gottman's Balance Theory of Marriages (Gottman, 1993) postulated three types of marriages such as volatile, validating and conflict-avoiding in terms of timing, communication strategies and persuasion attempts aimed to resolve conflict. Stable couples have a 5:1 ratio of positive to negative interactions (Gottman & Levenson, 2000; Ridley et al., 2001).

Research has also highlighted the relation of conflict resolution strategies to relationship quality and satisfaction (Kamp Dush & Taylor, 2012; McNulty & Russell, 2010; Scheeren et al., 2014; Wagner et al., 2019; Wheeler et al., 2010). Dissatisfaction in relationships depends on how couples react to the conflict and communicate about it (Gordon & Chen, 2016), dominating styles, manifested by inflexibility, manipulation, control, and rigidity are most detrimental to relationships (Greeff & de Bruyne, 2000). Moreover, avoidance may lead to emotional distance in relationships because of the delay in discussing the conflict issue. The avoidant approach may result in the conflict issue reappearing and this strategy is also related to low marital satisfaction (Gottman, 1993; Greeff & de Bruyne 2000). Effective conflict styles such as validation of spouses'



emotions and opinions, compromise, resolving differences have been associated with high marital quality (Wagner et al., 2019).

### **Measurement of Conflict Styles**

There are numerous measures of conflict styles in the relationship and communication literature. For example, the Relationship Styles Questionnaire measures resolution styles such as avoidance, volatile and validating (Gottman & Levenson, 2000). The Marital Coping Inventory (Bowman, 1990) measures conflict strategies but focuses on recurring problems only. Other scales such as Ineffective Arguing Inventory (IAI; Kurdek, 1995), Conflict Tactics Scale (CTS; Straus et al., 1996), and Conflict Resolution Behaviour Questionnaire (CRBQ) have been adapted to be used for couples (Fonseca et al., 2021). Most of these measures have focused largely on the negative aspects of conflict. The focus of this study is on positive and negative aspects of conflict. Thus, it is important to utilize a scale that covers various aspects of daily life conflict resolution as well as both positive and negative conflict strategies.

The Romantic Partner Conflict Scale (Zacchilli et al., 2009) measures everyday partner conflict through six strategies including compromise, domination, avoidance, separation, submission, interactional reactivity. With compromise, a win-win situation is held by satisfying both spouses by negotiating and collaborating. Compromise is the most effective conflict strategy. Domination is largely a destructive conflict resolution style as it postulates having the tendency to win all arguments and being in control of other spouse. Interactional reactivity is also a destructive strategy as it includes high emotional reactivity and verbal aggression toward one's partner. Submission is characterized by giving in or surrendering one's own wishes to end the conflict. Separation entails delaying of the issue discussion, taking space, and initiating a cooling-off period. Finally, avoidance includes not discussing or communicating the issue at all. As per Zacchilli et al.'s (2009) factor structure, the two clear destructive strategies are domination and interactional reactivity, compromise and avoidance are constructive strategies. The other two strategies can be destructive or constructive given the context. This tool was utilized in the present study because it covers several different strategies of handling conflicts in day-to-day life situations, including constructive and destructive strategies to aid in better explaining correlates of conflict styles in Pakistani research. As this scale has not been investigated in Asian cultures, it will be fruitful to validate it in Pakistani population.

In Pakistan, marriages are cohesive units that are largely affected by customs, norms and pleasing of extended families. Many couples go through an apparent stability in marriages, but the quality may decrease depending on the conflict strategies used. Zaman and Shehzad (2018) conducted a grounded theory research and discussed that conflict settled by elders might settle for the time being but re-emerge later and successful conflict management strategies lead to social cohesion in families, but unsuccessful nego-



tiation can also result in causing trouble and getting revenge. Research has also shown that in Asian societies families can go through traditional family norms of resolving conflict as well as self-regulatory strategies for resolution, both these components are of high pertinence in studying conflict literature in Pakistan (Jacoby & Mansuri, 2010). Akhtar et al. (2017) noted that arranged marriages entail domineering and vindictive styles and love marriages reveal more socially inhibited, non-assertive and intrusive styles in married couples of Pakistan. In current context avoidance and integrative styles had a positive relation with satisfaction in marriages whereas verbal and distributive style had a negative relationship, Women used more integrative style and men used avoidant, verbal, and distributive style (Ali & Saleem, 2022). Moreover, another indigenous study also revealed that dissatisfied married couples utilize avoidance style majorly and do not use accommodating, collaborating, or compromising styles (Dildar et al., 2013). Husband's feelings of intimacy increased after conflict in a Pakistani study as compensation of conflict (Iqbal et al., 2013).

In other research, positive problem-solving strategies in husbands and wives were predictive of marital satisfaction (Ünal & Akgun, 2022). Higher positive and lower conflict resolution styles, lower perceived stress was also associated with marital satisfaction (Isik & Kaya, 2022). Azadifard and Amani (2017) revealed that dominant and avoiding styles had a negative association whereas compromise and integrated conflict resolution style had a positive association with satisfaction in marriages. It is possible that Pakistani couples use both constructive and destructive strategies, thus the six strategies posited by RPCS (Zacchilli et al., 2009) should measure conflict strategies used in Pakistani culture in a single scale.

### **Relational Variables**

Conflict processes have been associated with other variables; few are included in this research.

### **Marital Quality**

Literature has suggested that constructive strategies are related to better relationship quality, such that collaboration was a predictor of marital and spousal satisfaction (Azadifard & Amani, 2017), while destructive strategies determine lower relationship quality (McNulty & Russell, 2010; Scheeren et al., 2014; Wagner et al., 2019; Wheeler et al., 2010). Whereas avoidance, separation or manipulation patterns deemed as destructive responses paved way for exacerbated conflict and lead towards damaged quality of relationships (Overall & McNulty, 2017). Integrative styles and avoidance strategy were positively related to satisfaction in marriages; verbal and distributive styles were negatively related to it. Dissatisfied couples in Pakistan utilized more avoidance (Ali & Saleem, 2022; Dildar et al., 2013). Moreover, in original factor structure, compromise had



a positive correlation with relational quality while interactional reactivity (IR), domination, and submission were negatively correlated with it (Zacchilli et al., 2009).

### Intimacy

Johnson (2008) postulated that 69% of conflicts in marital relationships are due to perpetual problems, hence feelings of connection correspond to the ability to deal with these differences (Gottman & Levenson, 2000). Couples with low intimacy indulge in more aggressive outbursts and utilize less open communication (Cummings & Davies, 2010). Du Rocher Schudlich et al. (2013) revealed that emotional, social, intellectual, recreational intimacy were predictive of men's conflict behaviours whereas in women only emotional intimacy was a predictor. Research also indicates that couples that showed higher compromise, low levels of violence, offense or avoidance conflict styles demonstrated enhanced self-disclosure and intimacy in relationship (Bertoni & Bodenmann, 2010).

### **Communication Patterns**

A system of process of negative and positive interdependent patterns of interaction are also called communication patterns (Caughlin & Huston, 2002). Moreover, Delatorre and Wagner (2019) showed that Low Conflict/Withdraw and Volatile and Hostile profiles depicted low relationship quality and validating profiles predicted high relationship quality. Bradbury and Karney (2013) stated that satisfied couples use more positive communication styles while distressed couples use negative communication styles. Negative interaction was associated with decreased marital satisfaction (McNulty & Russell, 2010). Constructive communication entails collaboration, supportive coping, active engagement, practical support during conflict and playing an equal role in resolution of conflict (Manne et al., 2010). It is evident that demand-withdraw patterns predict lower relationship quality (e.g., Caughlin & Huston, 2002; Smith et al., 2008), but constructive, positive, and open ways of communication are related to satisfaction in relationships (Kim, 2019; Lukman et al., 2020).

### Marital Locus of Control (MLOC)

Sawai et al. (2018) reported a negative correlation between external locus of control (LOC) and marital satisfaction. Other research indicated that internal LOC had a positive relationship with marital satisfaction. Ganji et al. (2012) also showed that external LOC spouses showed dissatisfaction and higher marital instability (Tandi & Osarhamen, 2020), internal LOC with marital stability and satisfaction (Lee & McKinnish, 2019).

# Hypotheses

1. It was hypothesized that translated scale will confirm the factor structure for RPCS in Pakistani sample.

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- 2. It was hypothesized that the factor structure will remain equivalent for both husbands and wives (measurement invariance).
- 3. Constructive strategies (compromise, avoidance) will have positive correlation with marital quality, intimacy, and constructive communication, internal MLOC whereas destructive strategies (domination, IR) will have positive correlation with self and partner demand withdraw patterns of communication, external MLOC and negative correlation with marital quality and intimacy. Submission and separation will be mixed strategies.

# Method

Method comprised of three phases: Translation; Construct Validation of Romantic Partner Conflict Scale (CFA and Testing for Measurement Invariance; Zacchilli et al., 2009); associations with MLOC, communication patterns, marital quality, and intimacy.

# Measures

### **Romantic Partner Conflict Scale (RPCS)**

The RPCS was developed by Zacchilli et al. (2009) and was designed to assess resolution of conflict processes used in conflict interactions with 39 items responded on Likert scale 1 to 5 (agree to disagree). Items of six strategies were summed to generate scores on each dimension as compromise (Items 1–14), avoidance (Items 15–17), interactional reactivity (18–23), separation (24–28), domination (29–34), submission (35–39). Cronbach's alpha ranged between .82 to .95 suggesting that each subscale showed high reliability.

### **Relationship Assessment Scale (RAS)**

Relationship Assessment Scale (RAS; Hendrick et al., 1998) includes overall quality of relationship with 7 items rated on five possible responses (A, B, C, D, E) ranging from poorly to extremely well. Items 4 and 7 were reverse coded, and after that responses on all items were summed to calculate marital quality with a reliability of .95 (Hendrick et al., 1998; Steuber, 2005).

### **Triangular Theory of Love Scale (TTLS)**

To measure intimacy, Sternberg's (1997) Triangular Theory of Love Scale was used. The present research only Intimacy subscale was utilized, sum of 15 items denoted the intimacy score. Rating scales includes a 9-point Likert scale with 1 (not at all) to 9 and the reliability was .91 for intimacy (extremely; Acker & Davis, 1992; Sternberg, 1997).



# Communication Patterns Questionnaire (CPQ)

CPQ (Christensen & Shenk, 1991; Crenshaw et al., 2017) assesses patterns of communication in romantic relationships with 35 items. Likert scale ranges from 1 (very unlikely) to 9 (very likely). Scores on three subscales were computed by adding responses on following items; constructive communication (Items 1, 2, 5, 6, 19, 18, 19, 20, 21), self-demand/partner-withdraw (3, 7, 9, 11, 13, 15, 22) and partner-demand/self-withdraw (4, 8, 10, 12, 14, 16, 23). Items 1 and 20 were reverse coded, reliabilities ranged between .73 to .81 (Crenshaw et al., 2017; Eldridge & Christensen, 2002).

### Marital Locus of Control Scale (MLOCS)

Myers and Booth (1999) developed a shorter version of the scale by Miller et al. (1983) consisting of 20 items which was used in present study. Sum of responses indicated score on MLOCS with higher score showed more internal marital locus of control with a reliability coefficient of .91.

# Procedure

The participants were approached through several sources, at first couples were contacted through personal acquaintances; sample was also approached from their respective colonies, towns and were also contacted through social networking websites, couples fulfilling the criteria were selected. Questionnaires were filled in two ways, participants filled questionnaires in the presence of the researcher as well as at their own time and ease. The husbands and wives were instructed to fill questionnaires separately. To begin the data gathering process, verbal consent explaining the purpose of the study were taken from the respective couples and were assured about the privacy regarding the results and information. A specific serial number was assigned to couples to ensure matching of husband and wives for couple data.

# **Ethical Considerations**

Permission was granted to translate the scales and adapt the scales used in present study from the authors of the scales, consent was taken from the participants and confidentiality and anonymity was maintained.

# Translation

All scales were translated from English to Urdu for Forward translations in the following four stages (Andersson et al., 2022; Kuliś et al., 2011). Stage I: Forward Translations: For forward translations Four bilingual experts were approached. Stage II: Committee Approach: includes assessment of compatibility, concept clarity, adequacy, grammatical context, language difficulty and cultural relevance between the English and Urdu language of the instruments. Committee comprised of 5 bilingual experts. For the modification



of the scales, the word 'partner' was translated as 'spouse' to preserve marital context. Stage III: Back Translation / Reformulation of Equivalence: Three bilingual experts of Urdu and English language were approached assess differences, inconsistencies, and ambiguities between the two languages. Conceptual equivalence and language difficulty were assessed again by the same committee members for increasing the understanding level of items as per cultural context. For assessment of sentence structure, further, two language experts were approached. Stage IV: Pilot study: Try out was conducted on n = 30 participants and it showed good reliabilities.

As suggested by the committee, for the modification and translation of the scales, the word 'partner' was adapted as 'spouse' to preserve the cultural and marital context of the present study. In RPCS, item 8 'I try to meet my partner halfway to ...' was adapted in Urdu as finding a solution acceptable for both spouses because this phrase could not be literally translated in the present context. And in item 9, 'to find a middle ground' was translated to convey literal meaning as middle way' in Urdu as it entails the same meaning in both languages. Also, in item 12 'common ground' showed similar meanings to the above-mentioned item, but these items were translated to keep the independent identity of each item different from others. Moreover, in item 33, word 'in charge' was retained as it is in Urdu as it conveys the same meaning. In item 35, 'When we have conflict, I usually give in to my partner' was translated as 'accepting partner's wishes or terms' in Urdu to give clarity and meaning to the items.

### Sample

Data from 150 married couples (N = 300; i.e., 150 husbands and 150 wives) was collected through purposive sampling strategy. Only those participants were included in the study who were married for at least 1 year and did not have a history of divorce. The sample size was adequate for CFA (DeVellis, 2017)

# Results

Confirmatory Factor Analysis was applied for RPCS. A sample of 300 married couples, with 150 husbands and 150 wives in the age range (M = 32.40, SD = 6.78) with marital duration range of 1 to 16 years (M = 6.78, SD = 5.27). The descriptive statistics of demographic variables are given in Table 1.

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#### Table 1

Descriptive Statistics of Demographic Variables (N = 300)

	M(SD)			n (%)			
Variable	Total	Unaban da	147:	Total	I Inchan da	147:	
	Sample	nusbanus	wives	Sample	Husballus	wives	
Age (in years)	32.40 (6.78)	34.23 (6.86)	30.56(6.20)				
Age at marriage (in years)	25.68 (4.00)	27.54(3.76)	23.83(3.30)				
Duration of marriage	6.78 (5.27)						
Education (in years)	14.95 (2.26)	15.05(2.27)	14.86(2.25)				
Family Income (In PKR)							
Less than 50,000				91(30.3)			
51-100,000				126(42.0)			
More than 100,000				83(27.7)			
Employment Status							
Employed				128(42.7)	111(74)	24(16)	
Unemployed				124(41.3)	0(0)	117(78)	
Self-employed				48(16)	40(26)	9(6)	
Family System							
Nuclear				166(55.3)			
Joint				134(44.7)			
Type of Marriage							
Arranged				178(59.3)			
Love				122(40.6)			

Note. PKR = Pakistani Rupees.

Confirmatory Factor Analysis through AMOS Version 21 with Maximum Likelihood Estimates method was used to analyse the factor structure in Figure 2. Compromise included Items 1–14, Avoidance (Items 15–17), Interactional Reactivity (Items 18–23), Separation (24–28), Domination (Items 29–34), Submission (35–39). The Initial Model indices of absolute fit (chi-square, *df* and probability level), CFI, IFI, RMSEA were analysed. As per criteria, RMSEA values below .08 and Comparative Fit Index (CFI), Incremental Fit Index (IFI) of .9 or higher were recommended and Goodness of Fit Index (GFI) of .9 or higher (Arbuckle, 2014; Awang, 2020; Byrne, 2013; Kline, 2015) The fit indices for absolute (Chi-square, *df* and *p*-level) was significant, yet relative fit for Initial (RMSEA) were only according to the range of good fit model as shown in Table 2. The Initial model with factor loadings is shown in Figure 1 and final model is shown in Figure 2.



#### Figure 1

*Factor Structure of Romantic Partner Conflict Scale Before Model Modification (N = 300)* 



#### Figure 2

Final Factor Structure of Romantic Partner Conflict Scale (N = 300)



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#### Table 2

Model Fit Indices for CFA on Romantic Partner Conflict Scale

Model	$X^2(df)$	CFI	IFI	RMSEA	$\mathbf{X}^2/df$
Model 1 <sup>ª</sup>	1597.20(687)***	.83	.83	.06	2.32
Model 2 <sup>b</sup>	1111.98(608)***	.902	.904	.05	1.83
$\Delta \chi^2 (\Delta df)$	485.22(79)***				

*Note*. Structural equation modelling was used for the analysis. CFI = comparative fit index; IFI = incremental fit index; RMSEA = root-mean-square error of approximation.

<sup>a</sup>In Model 1, 39 items were loaded on 6 factors. <sup>b</sup>In Model 2, 37 items were loaded on 6 factors. \*p < .001.

The model went through modification process to aid in a better fitted Final Model by removing the items with lesser loadings. As per criteria factor loading less than .4 were removed due to lower competence in explaining the factor structure (Brown & Moore, 2012; Matsunaga, 2010). Item number 6 from compromise scale and Item 30 from domination scale were removed. Item 3 showed marginal factor loading of .39, hence it was retained. And co-variances were drawn between error-variances of items within the same constructs, suggested by modification indices for increasing the fit (Awang, 2020). Chi-square change suggested significant difference between Initial Model and final model after modifications and X<sup>2</sup>/df ratio (Kline, 2015) exhibited a decrease also aiding to explain that changes made were better applicable to the factor structure of RPCS. For the final CFA model all factor loadings were well within range .39 to .84 as shown in Table 3.

#### Table 3

Factor Loadings of RPCS

			Interactional			
Item No.	Compromise	Avoidance	Reactivity	Separation	Domination	Submission
1	.52					
2	.66					
3	.39					
4	.57					
5	.49					
7	.80					
8	.74					
9	.56					
10	.78					
11	.74					
12	.76					
13	.75					



			Interactional			
Item No.	Compromise	Avoidance	Reactivity	Separation	Domination	Submission
14	.80					
15		.67				
16		.84				
17		.80				
18			.56			
19			.80			
20			.78			
21			.76			
22			.79			
23			.75			
24				.68		
25				.80		
26				.65		
27				.60		
28				.58		
29					.71	
31					.62	
32					.43	
33					.69	
34					.60	
35						.65
36						.72
37						.73
38						.73
39						.65

# **Convergent Validity**

When all items in the measurement model are statistically significant the convergent validity is achieved, in the Final Model, all items showed p < .000 for their respective factors (Awang, 2020).

# **Discriminant Validity**

Discriminating items reveal that models should be free from redundant items which includes presence of correlations greater than 0.85, all inter-item correlations were less than 0.85 and did not show any multicollinearity establishing good discriminant validity (Awang, 2020).

All subscales revealed good reliabilities with standard criterion of greater than 0.6 (Schrepp, 2020). Internal consistency reliability indicates correlation matrix between the



items. But Composite Reliability (CR) shows the internal consistency of latent construct. A value > 0.6 reveals good CR. And all subscales had a CR > 0.6 (Awang, 2020)

Table 4 revealed that there were positive associations of compromise with avoidance, separation, submission, and negative association with interactional reactivity. Avoidance also revealed a positive association with separation and submission. Moreover, Interactional reactivity showed a negative association with compromise and avoidance but positive association with separation and domination. Also, separation and submission were positive correlated with each other, and separation had a positive correlation with domination.

#### Table 4

Reliability Coefficients and Inter-Correlations of the Subscales of RPCS (N = 300)

Variable	α	CR	М	SD	2	3	4	5	6
1. Compromise	.91	.91	39.58	9.62	.45***	37***	.18**	09	.49***
2. Avoidance	.81	.82	8.79	3.01	_	15**	.18**	11	.43***
3. Interactional Reactivity	.87	.88	9.12	6.41	_	-	.26***	.63***	08
4. Separation	.82	.80	12.94	4.59	_	_	_	.28***	.32***
5. Domination	.75	.75	9.60	4.72	_	_	—	—	.01
6. Submission	.82	.83	14.12	3.92	—	_	—	—	—

*Note*.  $\alpha$  = Cronbach's Alpha; CR = Composite Reliability.

p < .05. p < .10. p < .001.

### **Construct Validity; Tests for Measurement Invariance**

In line with rationale of the study, CFA model with multigroup modelling was tested for measurement invariance across the gender i.e., Husband and Wives. Four main steps for testing measurement invariance (1) *configural equivalence*; (2) *metric* equivalence, equivalence of factor loadings; (3) *scalar*, equivalence of item intercepts and (4) *residuals* equivalence of items' residuals or unique variances. The constituent parts of measurement model are standardized estimates (loadings), item intercepts, error variances and error covariances (correlated errors; Kenny, 2011). The results for configural model for measurement invariance testing, using AMOS 21 were presented in Table 5.

As power of the tests are influenced by sample sizes and studies have shown that measures of model fit indices are sensitive to smaller sample size (Chen, 2007) with CFI and RMSEA being more sensitive in small models (Fan & Sivo, 2009). As the present CFA model was of a larger size, all factors were tested on separate models, so that the sample size could not be a limitation (Kenny et al., 2015; Meade et al., 2008).

Putnick and Bornstein (2016) stipulated that measurement invariance studies should include the following:  $\chi^2(df)$ , CFI, RMSEA,  $\Delta\chi^2(\Delta df)$ ,  $\Delta$ CFI,  $\Delta$ RMSEA, and decision of accepting or rejecting invariance was reported in Table 5.



### Table 5

Model Fit Indices for Testing Measurement Invariances Across Husbands and Wives for Factors of RCPS (Compromise, Interactional Reactivity, Separation, Domination, Submission)

Model		$\chi^2(df)$	CFI	RMSEA	$\Delta \chi^2 (\Delta df)$	ΔCFI	ΔRMSEA	Decision
С	ompromise							
1	Configural Invariance	255.66(122)***	.933	.061				Accepted
2	Metric Invariance	276.97(134)***	.927	.060	21.31(12)	006	.01	Accepted
	(Factor Loadings)							
3	Scalar Invariance (Item	267.19(135)***	.933	.057	11.53(13)	.006	.004	Accepted
	Intercepts)							
4	Residual Invariance	278.37(135)***	.927	.060	22.71(13)	006	.01	Accepted
	(Error Variances and co-							
	variances)							
In	teractional Reactivity							
1	Configural Invariance	30.68(18)*	.984	.049				Accepted
2	Metric Invariance	34.36(23)	.985	.041	3.68(5)	001	.008	Accepted
	(Factor Loadings)							
3	Scalar Invariance (Item	34.99(24)	.986	.039	4.32(6)	.002	.01	Accepted
	Intercepts)							
4	Residual Invariance	35.97(24)	.985	.041	5.30(6)	001	.008	Accepted
	(Error Variances and co-							
	variances)							
Se	eparation							
1	Configural Invariance	20.39(6)**	.973	.09				Accepted
2	Metric Invariance	25.10(10)**	.971	.071	4.70(4)	.002	.008	Accepted
	(Factor Loadings)							
3	Scalar Invariance (Item	23.31(11)*	.977	.061	2.90(5)	004	.01	Accepted
	Intercepts)							
4	Residual Invariance	35.43(13)**	.956	.078	16.03(7)*	01	.008	Accepted
	(Error Variances and co-							
	variances)							
D	omination							
1	Configural Invariance	10.53(10)	.98	.01				Accepted
2	Metric Invariance	12.72(14)	1.00	> .001	4.70(4)	002	.001	Accepted
	(Factor Loadings)							
3	Scalar Invariance (Item	21.13(15)	.979	.037	2.90(5)	001	027	Accepted
	Intercepts)							
4	Residual Invariance	11.78(15)	1.00	> .001	16.03(7)*	001	.001	Accepted
	(Error Variances and co-							
	variances)							



Model		$\chi^2(df)$	CFI	RMSEA	$\Delta \chi^2 (\Delta df)$	ΔCFI	ΔRMSEA	Decision	
Submission									
1	Configural Invariance	19.58(10)	.98	.057				Accepted	
2	Metric Invariance	29.78(14)**	.968	.062	10.20(4)*	.012	005	Accepted	
	(Factor Loadings)								
3	Scalar Invariance (Item	19.95(15)	.99	.033	0.38(5)	001	.024	Accepted	
	Intercepts)								
4	Residual Invariance	30.47(15)*	.968	.059	10.89(7)	.012	002	Accepted	
	(Error Variances and co-								
	variances)								

*Note.* Structural equation modelling was used for the analysis. CFI = comparative fit index; RMSEA = root-mean-square error of approximation.

p < .05. \*\* p < .10. \*\*\* p < .001.

### **Configural Model**

The configural model is best fitted model to further analyse the measurement invariance, which in this case establishing good fit indices (Byrne & Watkins, 2003; Dimitrov, 2010). The number of groups included were two i.e., 150 husbands and 150 wives. Chen (2007) reported a criterion of a -.01 change in CFI, paired with changes in RMSEA of .015 (for metric invariance) or .015 (for scalar or residual invariance).

### **Metric Invariance**

The term metric equivalence is also used for testing for invariant factor loadings (Byrne, 2013). Factor loading values for the husbands and wives were constrained as equal. The overall model fit was compared with configural model and if the model fit does not decrease significantly then metric invariance will be accepted.

### **Scalar Invariance**

Item intercepts are constrained equal for the two groups in the next step.

### **Residual Invariance**

After establishing scalar invariance, residual invariance is tested which constitutes equivalence of residuals of items of metric and scalar invariance. It shows that variance that is not shared with factor (specific variance) or measure error (error variances and co-variances) are similar across both groups (Putnick & Bornstein, 2016).

In the present model, the construct validity in case of measurement invariance was analysed separately for each factor. This may be considered a limitation, but this can also serve as solution to generate possible solutions in case of model and sample size limitations. This method was also utilized by (An et al., 2017) to describe measurement invariances of subscales separately. All measurement invariances showed no difference



between husbands and wives in measurement model loadings, intercepts, error variances and co-variances, strengthening the construct validity of the scale (Byrne, 2013; Chen, 2007; Putnick & Bornstein, 2016) as shown in Table 5. Avoidance subscale was not included in the measurement invariance test due to the limitation of three items per factor as an identifiability rule in AMOS.

Results in Table 6 revealed that all scales had good reliabilities. Moreover, compromise and avoidance were positively associated with internal MLOC, constructive communication, marital quality, and intimacy. They were negative correlated with self and partner demand withdraw pattern. IR and domination were negatively associated with internal MLOC, constructive communication, marital quality, and intimacy and positively correlated with external MLOC and with self and partner demand withdraw pattern as hypothesized. Separation was positively associated with all variables as hypothesized, except marital quality. And submission was positively correlated with all variables and showed no relationship with self or partner demand withdraw pattern.

#### Table 6

Descriptives, Cronbach's Alpha and Correlations of MLOCS, CPQ With Subscales, RAS, TTLS (Intimacy) With RPCS Subscales

					Interactional			
Variable	α	M(SD)	Compromise	Avoidance	Reactivity	Separation	Domination	Submission
Marital Quality	.85	28.58(5.53)	.59***	.37***	61***	.06	31***	.32***
Intimacy	.96	111.31(25.72)	.56***	.35***	45***	.16**	22***	.35***
СС	.65	56.91(11.32)	.63***	.38***	48***	.15**	18**	.37***
SDWP	.67	31.24(10.76)	19**	16**	.60***	.12*	.50***	02
PDWP	.65	30.43(10.26)	18**	13*	.56***	.13*	.48***	.02
Internal MLOC	.76	31.30(4.86)	.46***	.30**	18**	.22***	08	.38***
External MLOC	.67	26.68(4.94)	.04	.02	.37***	.30***	.30***	.29***

*Note.* CC = Constructive Communication; SDPW = Self demand withdraw pattern; PDWP = Partner Demand Withdraw Pattern; MLOC= Marital Locus of Control. \*p < .05. \*\*p < .10. \*\*\*p < .001.

# Discussion

The 37-item Urdu translated version of RPCS was validated for Pakistani married population can be applied as a screening measure, diagnostic measure, and a research tool for assessment of various dimensions of marital conflict. The cultural adaptation furthers this tool for future research in addressing pressing topics regarding divorce and dissolution of marriages in Pakistan. A set of rigorous steps were utilized regarding translation and adaptation, including the forward-backward method entailed how sometimes literal meaning of the word cannot be utilized as it takes away from the original context of the item, especially in case of phrases. Moreover, committee discussion holds most signif-



icance in the translation method. Validation was done in multiple ways, traditional CFA, a relatively new strategy of measurement invariance through multi-group modelling, and associations with relational variables. A thorough process of configural, metric, scalar and residuals equivalence were showed with reporting techniques, especially in case of sample size limitations. Moreover, this research has highlighted a clear demarcation of the nature of strategies used in this culture. Analysing the direction of relationships, avoidance and compromise were utilized as constructive strategies, IR and domination were a destructive strategy, but separation and submission showed mixed directions with them, so it can be said that they were mixed strategies to resolve conflict.

# Compromise

There is wide literature on compromise as RPCS suggests finding the middle way or joint solution is the most effective strategy of handling conflict. The constructive nature of compromise is found out as hypothesized, research also revealed similar findings in case of shared decision making (Kamp Dush & Taylor, 2012), collaborative conflict management (Azadifard & Amani, 2017; Greeff & de Bruyne, 2000), knowledge about partners' needs and initiating solutions to problems between partners (Wheeler et al., 2010), Integrative styles (Ali & Saleem, 2022; Dildar et al., 2013), positive problem solving (Scheeren et al., 2014).

# Avoidance

Moreover, Overall and McNulty (2017) also found that in case of serious problems avoidance of conflict is effective, but it can be destructive if partners do not experience security in responsiveness. In another research (Overall et al., 2013) it was found that higher withdrawal was shown by partners' who used avoidance strategy in case of conflicts as a defensive reaction leading to less successful discussions. The present study discussed how avoidance of conflict is beneficial yet avoidance of spouse during conflict is destructive to marriages.

# **Separation and Submission**

Lower intimacy also predicts lesser repair attempts of improving the marital relationship, more distance in relationships (Mikulincer & Shaver, 2005). The positive correlation between separation and intimacy indicates that breaks within a relationship during conflict can in turn increase the sense of connection between couples. However, this also largely depends on attachment security or dispositional traits and whether couples would feel secure when taking a break. Future research can further elaborate on the interaction between attachment dimensions and intimacy in predicting contextual nature of this strategy.

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# Submission

Present study confirmed that submissive behaviour; sacrificing personal wishes to maintain the relationship and avoid or end the conflict will evidently maintain better relational outcomes (Christensen & Shenk, 1991; Eldridge & Christensen, 2002; Pietromonaco et al., 2021). This research revealed a mixed nature of this strategy, yet submission can be a temporary band-aid for the conflict, but how it affects a person's own mental health still needs to be addressed in a longitudinal study.

# Interactional Reactivity and Domination

IR and domination are rooted in catering for self needs more as compared to spousal needs. These were destructive strategies as hypothesized and research also illustrate spouses who command, reject, or blame their partners (McNulty & Russell, 2010), and other destructive strategies determine lower relationship quality (Azadifard & Amani, 2017); control (Wheeler et al., 2010). It is evident that domination and IR can be a strategy as well as a trait, which does not exhibit flexibility in interpersonal matters. The present study highlights the destructive nature in terms of marital quality and suggests the need for intervention planning in couple counselling. If a person has these tendencies, counselling could possibly determine other strategies that could ensure longevity of marriage.

# Conclusions

This study elaborates on a rigorous method for translation of scales to guide future researchers. Moreover, construct validity has been established by conventional method of CFA. Also, testing for measurement invariance for cultural validation of scales promotes future research for cross-cultural comparisons to aid in better understanding of determinants of quality and stability in marriages. The RPCS (Zacchilli et al., 2009) can also be utilized for longitudinal research to assess variations in conflict styles and other marital outcomes. The present study highlighted pertinent correlates of conflict styles which can be effective in testing various theoretical models to explain causes of increased divorce rates. The adapted scale of RPCS can also be used in clinical practice or marital and family counselling as a screening and diagnostic tool to identify causal factors of failing or healthy marriages.

# Limitations

As measurement invariance was assessed by model testing with subscales separately, in future studies, sample size can be increased to incorporate all subscales within the same model to confirm whether it results in same factor structure. The present research focused on married couples with a duration of 1 to 16 years of marriage, future studies can widen the marital duration in older married couples as well to extend the applicabil-



ity of this tool. Moreover, the scales utilized in the present study were translated into Urdu using the same procedure, further CFA for scales on marital quality, intimacy, communication patterns and marital locus of control can confirm their factor structures to validate for Pakistani population to generate solution focused models or typology in marital contexts.

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Data Availability: The data can be provided upon reasonable request at zaeema2310@gmail.com

# Supplementary Materials

The Supplementary Materials include the 39-item Urdu Translated Romantic Partner Conflict Scale (Zacchilli et al., 2009). Items 6 and 30 were excluded in the final form of the validation study (see Farooq et al., 2024).

#### **Index of Supplementary Materials**

Farooq, Z., Akhtar, N., & Zacchilli, T. (2024). Supplementary materials to "Validation of Romantic Partner Conflict Scale (RPCS) in Pakistani married couples: Establishing measurement invariance" [Measurement Instrument]. PsychOpen GOLD. https://doi.org/10.23668/psycharchives.14651

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