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SEVERITY OF ILLNESS AS A PREDICTOR OF RELATIONSHIP SATISFACTION AMONG CHRONIC DIABETIC PATIENTS AND THEIR NON-DIABETIC PARTNERS: MODERATING ROLE OF DYADIC COPING

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Abstract

Chronic illness affects patients as well as close relations. The research question examined the relationship between illness perceptions of diabetic patients and their non-diabetic partners and the relationships between the perceptions and relationship satisfaction, and the moderating role of dyadic coping. Based on 166 respondents (83 couples), respondents were given measures of illness perception, dyadic coping, and relationship satisfaction. Regression analyses revealed that the more negative the views of the illness were, the lower the relationship satisfaction of both partners. Dyadic coping also acted as a moderator in a few models: increased amounts of dyadic coping decreased the adverse effects of illness perception on relationship satisfaction, both in patients and in partners assessing the illness of the patient. The simple slope analyses indicated a stronger negative illness perception to lower satisfaction. The evidence shows the significance of relational processes in chronic illness adaptation. Enhancement of dyadic coping should be the way to reduce relational strain and improve the overall relationship well-being among diabetic couples especially in collectivist society whereby interdependence determines the coping style.

INTRODUCTION

Diabetes is a chronic disorder, which involves lifestyle changes and continuous management. It is now a significant international health issue and impacts the everyday operations and quality of life of millions of people. The condition can be acquired once the pancreas fails to produce sufficient insulin or when the body fails to utilize it efficiently despite insulin being necessary to control the level of blood glucose (Pathak, 2025). The recent data in North Macedonia indicates that there is a correlation between diabetes and oxidative stress. It has been projected that in 2024 diabetes will be more prevalent in Skopje because of the rising pollution, lasting stress, and improved diagnostic procedures. The cheaper prices in the northeast might be associated with environmental or lifestyle variations. It seems that women are more affected, and it might be explained by biological, social, and economic factors (Ziberi et al., 2024). In line with this, a study conducted in Bangladesh has discovered that women with psychological distress were also at a greater risk of gestational diabetes (Nahar et al., 2024).

Additional research articles indicate that Type 2 diabetes patients have high distress and depression levels that adversely affect coping and

hopelessness (Malik et al., 2024). Coping style has been a key factor among adolescents with Type 1 diabetes. The relinquishment or evasion of diabetes responsibilities results in the deterioration of glycemic control and mental satisfaction (Straton et al., 2024).

Relationship satisfaction defines the general assessment of the relationship (Keizer, 2014). Positive dyadic coping has a strong predictive influence on increased relationship satisfaction, and negative coping behaviors are correlated with decreased relationship satisfaction, which proves that supportive joint coping is an effective predictor of relationship quality in the face of long-term stress (Hou et al., 2025).

Dyadic coping (DC) represents the joint way of coping between the partners; supportive, shared, or negative coping. Dyadic coping, which is positive, including emotional support or managing tasks jointly, is associated with both relational and individual wellbeing, which has been demonstrated in research on the coping of couples experiencing stress-related to dementia (Polenick et al., 2024). Hostile or ambivalent coping, on the contrary, diminishes the quality of relationships (Falconier and Kuhn, 2019). The systemic transactional model highlights that partners are interdependent, i.e. one partner stressing influences the other, and joint coping is crucial (Bodenmann et al., 2019). Dyadic coping is essential in all types of relationships (Wang and Umberson, 2022).

Despite the relationship between the severity of illness in diabetic couples and stress and relationship strain, studies do not often discuss the moderating importance of dyadic coping in this study. Although collaborative coping has been effectively demonstrated to have a moderating effect on wellbeing, there is a paucity of studies that specifically examine its moderating role on diabetes (Mason et al., 2024; Zhi, 2024). According to previous findings, relationship satisfaction has an effect on diabetes-related emotional distress, although the interaction between satisfaction and dyadic coping has limited studies (Wild, 2013). It is also observed that dyadic collaboration enhances mood and supportive interactions, which indicates that there is a benefit that requires further research (Helgeson et al., 2022). Further research is necessary to comprehend the moderating effects of the dyadic coping in diabetic couples.

Theoretical Framework

Dyadic regulation is the process of relationship management by coordinated use of emotions by partners in a relationship. It entails assisting one another in managing distress and providing comfort when going through difficult emotional situations (Murphy, 2022).

Systemic Transactional Model (Bodenmann, 1997):

This model describes the reaction of couples to stress within or outside of the relationship. It places emphasis on how each of the partners perceives stress (primary appraisal), assesses the ability to do anything (secondary appraisal), and implements coping strategies to deal with mutual or personal objectives (Collins et al., 2015).

Dyadic Regulation Interconnection Model (Karademas, 2022):

The model explains interrelationships between patients and partners in three spheres, i.e. coping behaviors, illness representations, and outcomes. These processes occur at an individual, relational, illness-related, and cultural level and evolve over time depending on the changes of any component of the system.

Literature Review

Severity of Illness Impact on relationships Satisfaction

The severity of illness impacts many relationships dimensions such as intimacy, empathy and communication. Emotional burden and caregiving requirements have been reported as the reasons behind reduced relationship satisfaction in couples with chronic illness (Bar-Kalifa et al., 2023). It is found that validation of communication, emotional sharing, and openness are associated with elevated levels of satisfaction (McAninch et al., 2022), and non-disclosure of communication is associated with reduced levels of satisfaction (Langer et al., 2018).

Dyadic coping increases interpersonal wellness and intimacy as partners can collectively deal with stresses of the illness (Shrout et al., 2023; Weitkamp et al., 2021).

Mediation of dyadic coping.

The association between positive dyadic coping and relationship satisfaction is also stronger in couples with chronic diseases like cardiac disease and cancer, whereas negative coping leads to a decrease in satisfaction (Giannousi et al., 2023). Psychological distress also influences the quality of interaction of couples in dyadic coping (Rapelli et al., 2024). In the context of COVID-19, the negative impact of the financial stress on satisfaction was buffered by the dyadic coping (Carrese-Chacra et al., 2023). Dyadic coping and satisfaction are also impacted by adverse childhood experiences, but their effects can be reduced by effective coping strategies (Erdem, 2023). The findings highlight the importance of dyadic coping as a factor that ensures the quality of relationships in stressful situations (Shujja et al., 2022).

Despite much work in the western context, there has been little work done looking at dyadic coping in diabetic couples in a South Asian or collectivist society. Cultural norms such as interdependence and shared responsibility may influence the ways of coping and the outcomes. Understanding how couples in collectivist culture scope with chronic illness together is important, especially because providing care and loving support to the couple is often a collaborative task. Examining dyadic coping as a moderator can indicate the manner in which supportive coping behaviors are protective of relationship satisfaction when illness severity is high.

Objectives

1. To examine the association between illness severity and relationship satisfaction among diabetic patients and their non-diabetic partners.
2. To explore whether dyadic coping moderates this association.
3. To assess whether positive and negative dyadic coping differ in their influence on this relationship.
4. To contribute culturally relevant findings from a South Asian collectivist context.

Hypotheses

H1: More negative illness perceptions will be associated with lower relationship satisfaction for both patients and partners.

H2: Dyadic coping will moderate this relationship, such that high dyadic coping will weaken the negative link between illness severity and relationship satisfaction.

Method

Although a wealth of literature has been conducted in Western settings, there is a paucity of research conducted on dyadic coping in diabetic couples who reside in a collectivist or South Asian setting. Interdependence and shared responsibility are cultural norms that might influence coping behaviors and coping outcomes. It is also significant to understand how members of collectivist cultures manage chronic illness together as they tend to share the responsibility of caring and providing emotional support. A review of moderating effects of dyadic coping can reveal the protective effect of supportive coping behaviors on relationship satisfaction in the face of more severe illnesses.

Research Design

The current research was based on the correlational, cross-sectional research design to assess severity of illness as an independent variable predicting relationship satisfaction among chronic diabetic patients and their non-diabetic partners with the dyadic coping as the moderating variable. The structure gave a chance to investigate inter-partner relationships in naturally occurring relationships in the presence of a chronic health condition.

Participants

The sample was married or cohabiting couples with one partner diagnosed with Type 1 or Type 2 diabetes clinically within a period of not less than six months. The study subjects were selected in outpatient departments of diabetes in the local clinics and semi-urban centers in Pakistan.

Inclusion criteria included that both of the partners lived together at least 1 year and could speak Urdu. Couples were not included in case one of the partners had a severe psychiatric or physical disability that would prevent them to complete the questionnaire. The estimated sample size was between 83 dyads which had been established by a power analysis that guaranteed sufficient statistical power to carry out the correlational and moderation analyses.

Measures

Severity of Illness (Broadbent et al., 2006)

Patients were surveyed regarding their severity of the sickness and the survey was conducted using the Brief Illness Perception Questionnaire. It has eight items before which the respondent is to rate on a 0-10 scale where a higher score suggests a more perceived severity and threat of the illness. The BIPQ has demonstrated good reliability and validity in chronic illness samples including diabetic populations. (Elizabeth et al., 2006). In this study this questionnaire was altered to form two versions to provide a self and partner oriented perspective.

Dyadic Coping (Bodenmann, 2008)

The 37-item scale, the Dyadic Coping Inventory, was used to assess partner perception and involvement in coping with stress in the relationship. It consists of supportive and common coping (positive subscales) and hostile or ambivalent coping (negative subscales) with a total of 5-point Likert scales ranging 1 = very rarely to 5 = very often. A positive correlation between higher scores on positive DC and more supportive coping behaviors (Shujja, 2020).

Relationship Satisfaction (Hendrick, 1988)

The Relationship Satisfaction Scale was applied to measure the general relationship satisfaction. It is a set of 7 items which are measured on a 5-point Likert scale, with a high score indicating a high satisfaction with the quality of the relationship (Hendrick, 1988).

Procedure

The data collection was done on the 83 couples as a result of the recruitment problem. The participants in the local communities and clinical facilities were selected using the convenience sampling technique. The patients included must live over five years with the condition, diabetes mellitus and have a non-diabetic partner. The exclusion criteria include: Patients who are not partners, those who had diabetes within 5 years are excluded. Sex partners with diabetes mellitus are also not accepted. To conduct this research, the board of studies identified the topic to be taken. After the subject was established, the sample was chosen and scales resolved. A version of Brief Illness Perception Questionnaire (BIPQ) was modified as follows into 3 versions in the first place, namely, (1)Partner-self version, (2)patient-partner version and (3)partner-patient version. This kind of alteration permitted the consideration of the opinions of both an individual and a partner who would be in accordance with the DRCM model. Questionnaires were also reviewed after receiving the data. Re-arranged reverse-scored items and loss of data were taken care of during initial screening before subjecting to statistical testing on SPSS.

Data Analysis

The SPSS (version 27) was used to analyze the data. All variables were calculated using descriptive statistics (means, standard deviations). The Pearson correlation analysis was employed to test the relationship between the severity of illness, dyadic coping and relationship satisfaction. To moderate test, Hayes Macro of PROCESS (Model 1) was used, where the moderating variable was dyadic coping, with illness severity as the independent variable and relationship satisfaction as the dependent variable. All analyses were set at a level of significance of $p < .05$.

Results

The statistical analysis of the data of the main study was carried out to examine the hypotheses suggested and to give the statistical evidences.

This was done using several statistical techniques e.g., Correlation, Descriptive analysis, Model Testing analysis of patient and partner versions. Psychometric properties of Illness perception concerning self and partner scales and Dyadic coping scale, relationship satisfaction scale, well-being scale, perceived stress scale were rated Good to excellent.

Table 1
Descriptive Statistics of Study Variables (N=166)

Variable	Patient M(SD)	Caregiver M(SD)	Patient Range (Min–Max)	Caregiver Range (Min–Max)	α Patient	α Caregiver
Dyadic Coping Total	3.37 (0.87)	3.42 (0.81)	1.28–4.97	1.52–4.93	.93	.95
Relationship Satisfaction	3.16 (1.21)	3.38 (1.02)	1.00–5.00	1.00–5.00	.92	.88
Illness Perception of Self	6.09 (1.87)	6.04 (1.82)	2.13–9.25	2.50–9.25	.78	.74
Illness Perception of Partner	5.96 (1.80)	6.04 (1.83)	2.38–9.25	2.13–9.25	.74	.73

Note. IPT_P_S = Illness Perception of Self; IPT_P_P = Illness Perception of Partner; DC_ST = Dyadic Coping Self; DC_PT = Dyadic Coping Partner; CDC_T = Common Dyadic Coping; RStot = Relationship Satisfaction.

In parentheses potential range is given

Descriptive statistics were computed separately for patients and caregivers. Internal consistency reliability estimates (Cronbach's alpha) ranged from .74 to .93 for patient measures and from .73 to .95 for caregiver measures, indicating acceptable to excellent reliability.

Table 2
Correlation Matrix on Study Variables of Patient Role (N=83)

	Variables	1	2	3	4
1	IPT_P_S	1	.80***	-.44***	-.32***
2	IPT_P_P	.89**	1	-.54**	-.41***
5	DC_T	-.34**	-.42**	1	.59**
6	RStot	-.41**	-.39**	.63**	1

Note. IPT_P_S = Illness Perception of Self; IPT_P_P = Illness Perception of Partner; DC_ST = Dyadic Coping Self; DC_PT = Dyadic Coping Partner; CDC_T = Common Dyadic Coping; RStot = Relationship Satisfaction.
p < .05, *p* < .01, *p* < .001.

For Diabetic Patients, Pearson correlations indicated that illness perception of self was strongly positively associated with illness perception of partner (.80, p < .001). Both self and partner illness perceptions were negatively correlated with dyadic coping, −.44*** and −.54*** respectively. Dyadic coping was positively correlated with relationship satisfaction, (.59, p < .001). Illness perception of self and partner were negatively related to relationship satisfaction

(−.32, p = .004) and (−.41, p < .001), suggesting that more threatening illness perceptions were linked with lower dyadic coping and lower relationship satisfaction among patients.

For Non Diabetic Partners, Illness perception of self was strongly positively associated with illness perception of partner (.83, p < .001). Illness perception of self and partner were negatively correlated with dyadic coping (−.39, p < .001 and −.46, p < .001). Dyadic coping showed a positive association with relationship satisfaction, (.57, p < .001). Illness perception of self and partner were negatively correlated with relationship satisfaction (−.36, p < .001 and −.38, p < .001) indicating that caregivers who viewed the illness as more severe or threatening also reported lower dyadic coping and reduced relationship satisfaction.

Table 3

Regression Analysis for Illness Perception of Self and Partner on Relationship Satisfaction among Patients (N = 83)

Predictor	Model B	β	95% CI	
			LL	UL
Constant	5.29***		4.48	6.10
Illness Perception of Self	-0.35**	-0.55	-0.56	-0.15
Illness Perception of Partner	0.00	0.01	-0.21	0.21
R^2	.29			
F	16.86***			

*p < .05. **p < .01. ***p* < .001*

A multiple regression analysis showed that illness perception of self significantly predicted lower relationship satisfaction among patients, β = −0.55, p < .01. Illness perception of partner was not a significant predictor, β = 0.01, p = .97. The model explained 29 percent of the variance in relationship satisfaction, F(2, 80) = 16.86, p < .001.

Table 4

Regression analysis for illness perception of self and partner on relationship satisfaction among caregivers (N = 83)

Predictor	Model B	β	95% CI	
			LL	UL
Constant	4.74***		4.01	5.48
Illness Perception of Self	-0.31*	-0.55	-0.56	-0.06
Illness Perception of Partner	0.08	0.15	-0.17	0.34
R^2	.17			
F	8.62***			

*p < .05. **p < .01. ***p* < .001.*

A multiple regression analysis indicated that illness perception of self significantly predicted lower relationship satisfaction among caregivers, β = −0.55, p = .017. Illness perception of partner was not a significant predictor, β = .15, p = .512. The model accounted for 17 percent of the variance in relationship satisfaction, F(2, 80) = 8.62, p < .001

Table 5
Moderating Role of Dyadic Coping in Relationship between Illness Perception (Self) and Relationship Satisfaction among Diabetic Patients (N = 83)

	Outcome: Relationship Satisfaction			
	B	**β**	**95%CI**	
			LL	**UL**
Constant	4.94**		2.18	7.70
Illness Perception (IR_S_Avg)	-0.65*	-0.55	-1.08	-0.22
Dyadic Coping (DC_T_Avg)	-0.12	-0.09	-0.78	0.54
IR_S_Avg × DC_T_Avg	0.14*	0.13	0.03	0.24
Low Dyadic Coping	-0.29*		-0.45	-0.12
Medium Dyadic Coping	-0.17*		-0.28	-0.06
High Dyadic Coping	-0.06		-0.16	0.04
R^2	.47			
F	24.10***			
ΔR^2	.04			
ΔF	6.70**			

*p < .05. **p < .01. ***p < .001.*

A moderation analysis showed that dyadic coping significantly moderated the relationship between illness perception of self and relationship satisfaction, $\Delta R^2 = .04$, $\Delta F(1, 79) = 6.70$, $p = .011$. Illness perception of self predicted lower relationship satisfaction at low ($B = -0.29$, $p = .001$) and medium levels of dyadic coping ($B = -0.17$, $p = .003$), but not at high levels ($B = -0.06$, $p = .23$). The overall model explained 47 percent of the variance in relationship satisfaction, $F(3, 79) = 24.10$, $p < .001$.

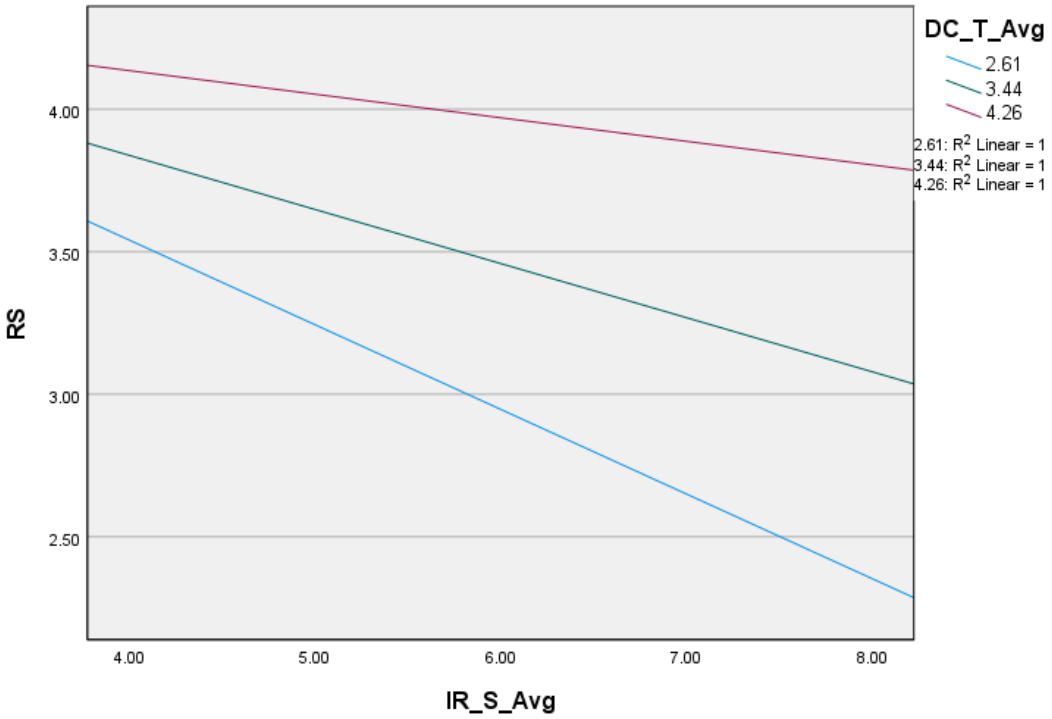

Figure 1
Mod-Graph Showing the Moderation of W between X and Y

Interaction plot showing the moderating effect of dyadic coping on the association between illness perception of self and relationship satisfaction among diabetic patients (N = 83). The horizontal axis represents illness perception of self, and the vertical axis represents relationship satisfaction. Three lines illustrate the conditional effects of illness perception at low (−1 SD), average (mean), and high (+1 SD) levels of dyadic coping. As illness perception becomes more negative, relationship satisfaction declines most sharply at low dyadic coping, declines moderately at average dyadic coping, and shows a weaker or non-significant decline at high dyadic coping, indicating a buffering effect of dyadic coping.

Table 6
Moderating Role of Dyadic Coping in the Relationship Between Illness Perception of Patients' Partner and Relationship Satisfaction among Diabetic Patients (N = 83)

	Outcome: Relationship Satisfaction		
		95% CI	
	B	LL	UL
Constant	3.86	0.89	6.83
Illness Perception (Partner; IR_P_Avg)	-0.50	-0.95	-0.04
Dyadic Coping (DC_T_Avg)	0.07	-0.63	0.78
IR_P_Avg × DC_T_Avg	0.11	-0.00	0.22
Low Dyadic Coping	-0.20	-0.38	-0.02
Medium Dyadic Coping	-0.11	-0.23	0.00
High Dyadic Coping	-0.02	-0.13	0.08

R^2	.43
F	20.30***
ΔR^2	.02
ΔF	3.91†

*p< .05. **p< .01. ***p< .001.

To examine whether Dyadic Coping moderates the relationship between patients' perception of their partner's illness and relationship satisfaction, a moderation analysis was conducted. Results showed that the interaction between Illness Perception of Partner (IR_P_Avg) and Dyadic Coping (DC_T_Avg) approached significance (B = .11, p = .051), suggesting a trend-level moderation effect. The main effect of Illness Perception of Partner was significant (B = –.50, 95% CI [–.95, –.04], p < .05), indicating that higher illness perception of the partner was associated with lower relationship satisfaction. Dyadic Coping alone did not significantly predict relationship satisfaction (B = .07, 95% CI [–.63, .78]). The interaction contributed an additional 2% of explained variance (ΔR^2 = .02, ΔF = 3.91, p = .051), showing that the negative association between partner illness perception and relationship satisfaction weakened as dyadic coping increased.

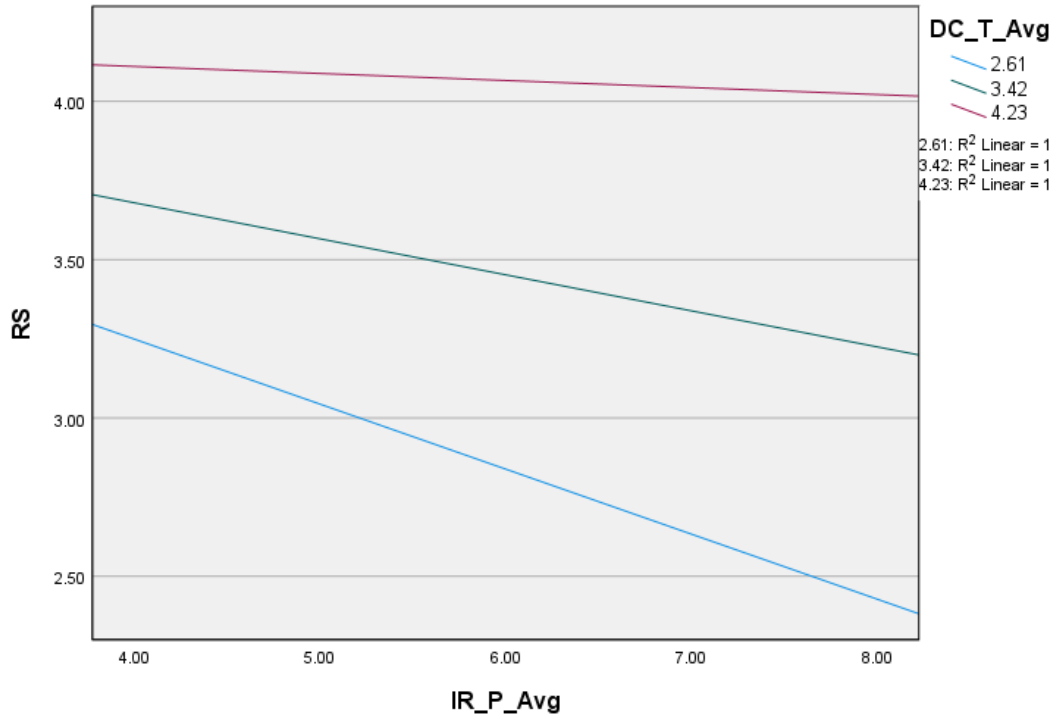

Figure 2
Mod-Graph Showing the Moderation of W between X and Y

The simple slope analysis indicated that the negative relationship between patients' perception of their partner's illness and relationship satisfaction was strongest at low levels of Dyadic Coping (B = –.20, p < .05), moderate at medium levels (B = –.11, p = .058), and weakest at high levels of Dyadic Coping (B = –.02, p = .686). This suggests that higher dyadic coping buffers the negative impact of partner illness perception on relationship satisfaction.

Table 7
Moderating Role of Dyadic Coping in the Relationship between Illness Perception (Patients Self) and Relationship Satisfaction among Non-Diabetic Partners (N = 83)

	Outcome: Relationship Satisfaction		
		95% CI	
	B	**LL**	**UL**
Constant	4.72	1.57	7.87
Illness Perception (IR_P_Avg)	-0.66*	-1.17	-0.16
Dyadic Coping (DC_T_Avg)	-0.00	-0.76	0.75
IR_P_Avg × DC_T_Avg	0.12†	-0.00	0.25
Low DC	-0.35**	-0.56	-0.14
Medium DC	-0.24***	-0.38	-0.11
High DC	-0.14*	-0.26	-0.01
R^2	.44		
F	21.11***		
ΔR^2 (interaction)	.02		
ΔF	3.82†		

*$p < .05$. **$p < .01$. ***$p < .001$.

A moderation analysis was conducted to examine whether Dyadic Coping moderates the relationship between patients' self-illness perception and relationship satisfaction among non-diabetic partners. Results showed that the interaction term between Illness Perception (self) and Dyadic Coping approached significance (B = 0.12, p = .054), indicating a potential moderation effect. The main effect of patients' self-illness perception was significant (B = –0.66, 95% CI [–1.17, –0.16], $p < .05$), suggesting that higher illness perception was associated with lower relationship satisfaction. Dyadic Coping alone did not significantly predict relationship satisfaction (B = –0.00, 95% CI [–0.76, 0.75]). The interaction explained an additional 2% of variance ($\Delta R^2 = .02$, $\Delta F = 3.82$, p = .054).

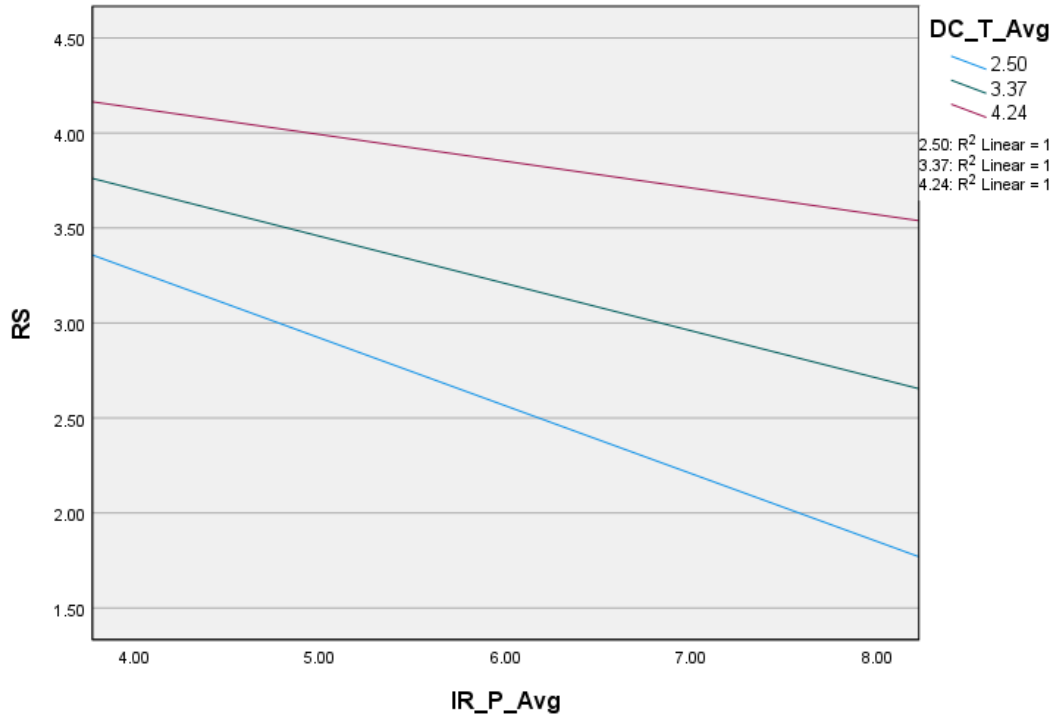

Figure 3
Mod-Graph Showing the Moderation of W between X and Y

The simple slope analysis revealed that the negative association between patients' self-illness perception and relationship satisfaction was strongest at low levels of Dyadic Coping (B = –0.35, p < .01), moderate at medium levels (B = –0.24, p < .001), and weakest at high levels (B = –0.14, p < .05). This pattern indicates that higher dyadic coping buffers the negative impact of patients' self-illness perception on their partner's relationship satisfaction.

Table 8
Moderating role of dyadic coping in the association between partners' illness perception and relationship satisfaction among non-diabetic partners (N=83)

	Outcome: Relationship Satisfaction		
		95%CI	
	B	**LL**	**UL**
Constant	3.96**	1.36	6.56
Illness Perception (IR_S_Avg)	-0.48*	-0.89	-0.08
Dyadic Coping (DC_T_Avg)	0.22	-0.42	0.87
IR_S_Avg × DC_T_Avg	0.07	-0.03	0.17
R^2	.47		
F	23.46***		
ΔR^2 (interaction)	.01		
ΔF	1.67		

*$p < .05$. **$p < .01$. ***$p < .001$.

A moderation analysis was conducted to examine whether Dyadic Coping moderates the relationship between partners' self-illness perception and relationship satisfaction among non-diabetic partners. Results showed that the interaction term between partners' self-illness perception and Dyadic Coping was not statistically significant (B = 0.07, 95% CI [–0.03, 0.17]), suggesting that Dyadic Coping did not significantly moderate this relationship. The main effect of partners' self-illness perception was significant (B = –0.48, 95% CI [–0.89, –0.08], p < .05), indicating that higher levels of illness perception were associated with lower relationship satisfaction. Dyadic Coping alone did not significantly predict relationship satisfaction (B = 0.22, 95% CI [–0.42, 0.87]). The interaction term explained an additional 1% of variance in relationship satisfaction (ΔR^2 = .01, ΔF = 1.67), though this was not significant.

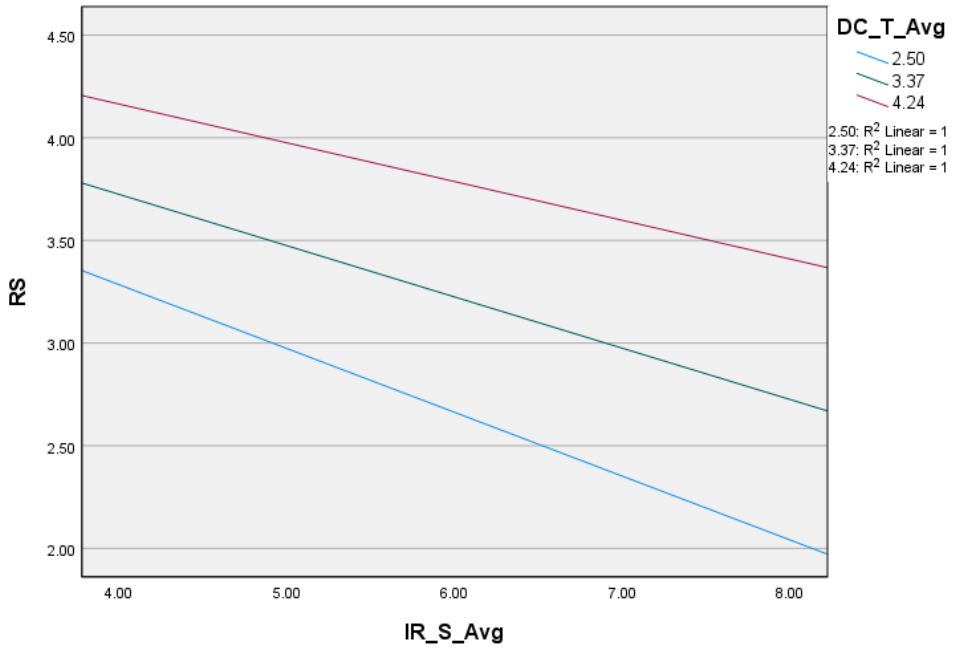

Figure 4
Mod-Graph Showing the Moderation of W between X and Y

Simple slope analysis indicated that the negative association between partners' self-illness perception and relationship satisfaction was strongest at low levels of Dyadic Coping (B = –0.48, p < .05), moderate at medium levels (B = –0.41, p < .05), and weakest at high levels (B = –0.34, p < .05).

Discussion

The findings revealed that perceived illness, dyadic coping and relationship satisfaction have been found to be related significantly. Specifically, the representation of illness was negatively correlated with dyadic coping, but there was a positive correlation between relationship satisfaction and dyadic coping. The findings confirm emotional and cognitive experience of one partner is connected to that of the other partner, especially when it comes to a chronic illness scenario. Both partners report the observation of emotional synchronization associated with the same degree of stress because it is consistent with the prior evidence that states that chronic conditions are related to mutual regulation of emotions (Karademas, 2021). Both patients and their spouses were more stressed in our sample which implies that burden of illness in terms of emotion is not only borne by the patient being diagnosed but in the dyad this burden is transferred. It is consistent with the

previous finding that the couples who are chronically ill often co-regulate emotional distress (Stas et al., 2024; Song et al., 2024).

Findings have clearly indicated that More negative illness perceptions of patients and their partners will correlate with less satisfaction of relationships among diabetic couples. The results are in line with the findings of various researchers. Evidence shows that an increased psychological burden, which may be the result of negative illness perceptions, has a negative relationship with marital satisfaction, with the researchers noting that female diabetic patients are more likely to experience a high level of psychological distress and lower levels of satisfaction than their male counterparts(Hayat et al., 2024). Moreover, illness appraisal dynamics indicate that, when the two partners are both enjoying a common comprehension of the illness, they promote supportive and collaborative behaviors, which are essential in sustaining relationship satisfaction(Helgeson et al., 2019). On the other hand, the individual appraisals of illness may result in less beneficial assistance and emotional distress, which further impairs a relationship. In this way, relationship satisfaction can be improved in diabetic couples by building common perceptions of illness. This can still be a rational consideration in the Pakistani context: the patients or partners who find the diagnosis of diabetes to be overwhelming or highly disruptive may cause stress and tension in the relationship and reduce satisfaction. It points out that subjective understanding of illness can be equally powerful in determining relational outcomes as objective disease indicators.

Findings indicate that this relationship is mediated by Dyadic coping high dyadic coping undermines the adverse association between illness severity and satisfaction. Dyadic coping (DC) is important as a mediator of the association between severity of illness and relationship satisfaction especially with cardiac illness and other stressors. The positive DC levels may reduce the adverse effects of the severity of illness on relationship satisfaction because a supportive environment reduces distress. As an example, positive DC is linked to elevated relationship satisfaction in couples confronted with cardiac illness since the coping couples manage stress together, hence limiting adverse impacts of illness-related distress on their relationship(Rapelli et al., 2024). On the other hand, negative DC intensifies the connection between distress and ineffective partner support, which underscores the relevance of positive DC to keep relationships happy in times of difficulty (Rapelli et al., 2021). This trend is also similar in other situations, including parenting a child with autism spectrum disorder, where positive DC is associated with greater relationship satisfaction, indicating its ability to encourage resilience and stress adaptation(Sim et al., 2017). Additionally, in the COVID-19 pandemic, DC alleviated the adverse effects of financial stress on relationship satisfaction, which proved its protective effect in the face of external stressors(Carrese-Chacra et al., 2023). Moreover, there is a mediating relationship between depressive mood and relationship satisfaction which is mediated by common DC, especially among men, which points to its enhanced generalizability to improve the dynamics of relationships (Gana et al., 2017). On the whole, these results help to underline the necessity of developing favorable DC methods to reduce the negative impact of illness severity and other stress factors on relationship satisfaction. Acceptance of these hypotheses could be described by the high levels of family interdependence and collectivism in the Pakistani context. Partner couples have a tendency to use each other to cope with chronic illness thus, proper dyadic coping involving problem-solving and emotional support is used to buffer the adverse effect of illness on relationship satisfaction. On the other hand, low dyadic coping results in an uneven distribution of the burden of illness, which increases stress and decreases satisfaction. This is consistent with your results that high dyadic coping attenuates the negative relationship between the perception of illness and relationship satisfaction, which indicates the culturally supported significance of joint coping in Pakistani families.

Implications

The research results demonstrate the significance of dyadic coping that can alleviate the adverse effects of perception of illness on relationship satisfaction in diabetic patients and their partners. This clinically indicates that the interventions that focus on both partners in the couple can be especially helpful. Interventions that could be done with couples may aim at enhancing joint problem-solving, emotional support and collaborative coping. Psychoeducation on the illness and its psychosocial effects could assist both the partners to learn how to understand how each other perceives illness and eliminate miscommunication or maladaptive assumptions about the illness. It might be particularly helpful to use stress communication training, which teaches couples to validate the experience of the other partner by expressing their concerns and fears and needs in a constructive manner. It can help avoid tension build-up and create a sense of effectiveness in coping with chronic illness. To clinicians, incorporation of such methods in everyday treatment of chronic diseases can enhance relational well-being and adherence of patients to therapy.

Strengths

The current study adds to the accumulating knowledge about relational forces in chronic illness as it explores how relationship-level qualities are co-developed between people with diabetes in terms of how illness perceptions and dyadic coping interact. The validity of the findings is also enhanced by the dyadic nature of the dataset as both partners were captured and not just single-informant reports. Methods This is methodologically rigorous since validated scales with high psychometric quality are used. The other strength is the element of cultural context since collectivist settings have the capability of influencing the way in which couples cope with illness-related stress significantly. With the application of moderation analysis, it is possible to perceive the influence of the appearance of the dyadic coping as mitigating or enhancing negative illness perceptions which provides an understanding of a potentially significant intervention mechanism.Family interdependence can in many collectivist societies, like Pakistan, enhance the relational impact of illness perceptions. The relationship partners could emphasize on relational harmony rather than the individual coping, which would affect how the dyadic coping is performed. The clinicians must be of a cultural sensitive nature where interventions are likely to require focusing on family and relational roles, integrating extended family processes, and defining coping strategies in terms of acceptable norms of support, obligation, and care, which are acceptable within a certain culture. Individualizing interventions to these cultural settings promotes involvement, reliability and efficacy.

Limitations

The convenience sampling limits the generalizability of the results since the sub-group of couples that were involved might not be similar to those that turned down or were not contacted. Self-report measures include the risk of shared method variance and are likely to be affected by social desirability. The study design is cross-sectional, and as such, it is not possible to have causal relationships and directionality is not clear. Cultural aspects have been discussed conceptually and not measured directly and therefore their effect can not be empirically tested in this study. There is also the exclusion criteria which narrows the representativeness of the diabetic populations in actual clinical environments as it is more restrictive of including those who have comorbid conditions.

Future Directions

Longitudinal designs offering a longitudinal follow-up of couples would be useful in future studies to better decipher the effects of illness perceptions and dyadic coping on the course of relationships. The combination of objective measures of the severity of illness, e.g., HbA1c or since-diagnosis time would shed light on the interaction between clinical and psychological variables. To enhance external validity, it would be better to extend the sample to other age groups, social and economic backgrounds, and

cultural contexts. Limitations of self-report could be overcome by using multi-method techniques, e.g. observational coding of couple interaction or clinician-rated severity. Other dyadic processes (i.e. communication patterns or emotional regulation strategies) can also be studied to understand the mechanisms between chronic illness and relationship quality in greater detail. Intervention-focused studies may also evaluate the capacity of promoting the dyadic coping ability to enhance relationships and psychological well-being of partners dealing with diabetes.

Conclusion

Managing chronic illness does not just necessitate medical therapy; the process of relationships is also essential in the well-being of the patients and their partners. This paper illustrates that the perceptions of illness raise the devaluation of relationship satisfaction, which is however buffered by dyadic coping. Strong collaborative coping and open communication between couples can be strengthened using interventions that can improve relational and psychological outcomes. Holistic management of chronic illness requires dealing with relational dynamics and medical care.

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