

## Differential effects of positive and negative meta-emotions on marital adjustment

Rashmi Rani\* & Arun Kumar Jaiswal\*\*

### Abstract

The study examined the impact of positive and negative meta-emotions on marital adjustment in married couples. The participants (300 husbands and 300 wives,  $N=600$ ) were individually administered Meta-Emotion Scale- (Hindi) and Dyadic Adjustment Scale- (Hindi). Results revealed non-significant main effects of spouses and significant main effects of levels of positive and negative meta-emotions on all the facets of marital adjustments. High as compared to low scorer participants on positive meta-emotions and negative meta-emotions demonstrated significantly higher and lower marital adjustment respectively. 'Spouses X levels of positive meta-emotions' interaction had no significant effects on marital adjustment, however, 'spouses X levels of negative meta-emotions' interaction had significant effect on marital consensus facets of marital adjustment and high levels of negative meta-emotions in husbands and wives and, low levels of negative meta-emotions in husbands resulted in similar levels of marital adjustment whereas low level of negative meta-emotions in wives caused higher marital adjustment.

**Key Words:** Dyadic Adjustment, Marital Adjustment, Negative Meta-emotions, Positive Meta-emotions

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### INTRODUCTION

Many characteristics of husbands and wives like personality, adjustment skills, communication style, cognitive processes like emotions, thinking, coping skills and affectional expressions etc., determine their quality of marital life. In addition, the happy marriages are also characterized by a sense of empathy (Tutarel, Kislak & Cabukca, 2002), emotional intelligence (Batoool & Khalid, 2012; Cikes, Maric & Sincek, 2018), and psychological well-being (Yesiltepe & Celik, 2014). The domains of marital life are important fields for psychological research because rapid industrial and technological development and social change might be putting additional pressure on couples' relationships and could be changing their marital life. The quality of the marriage is determined by marital adjustment, marital satisfaction and happiness, and how the couples evaluate their marital life. One of the elements of married life is marital adjustment and Burgess and Cottrell (1939) defined adjustment as "the integration of the couple in a union in which the two personalities are not merely merged, or submerged, but interact to complement each other for mutual satisfaction and the achievement of common objectives" (p. 10). Spanier has conceptualized marital or dyadic adjustment as a process and its outcome is

determined by the amount of: "(1) dyadic cohesion; (2) consensus on matters of importance to dyadic functioning which is also known as dyadic consensus; (3) and dyadic satisfaction though other factors have also been added in it like troublesome interpersonal dyadic differences and interpersonal tensions and personal anxiety.

Emotion perception, understanding and reasoning about emotions, and regulating or managing emotions are important in marriage (Fitness, 2001). There are reports that couples with partners low on emotional intelligence abilities manifest lowest scores on different areas of relationships. It has also been observed that if one of the partners has greater emotional intelligence abilities then couples have higher positive relationships (Brackett, Warner, & Bosco, 2005). These studies indicate that some aspects of cognitive emotional processes may have an important role in determining quality of interpersonal relationships like marital life.

Miller, Caughling and Huston (2003) have shown that expression of emotions by spouses to each other may affect their behaviour toward each other and thereby may affect their marital satisfaction. Emotions play a prominent role in marital relationship. It has been consistently reported in clinical studies that marital satisfaction negatively correlates with

mood disorders, anxiety disorders and substance abuse (Whisman, 1999), anxiety ((Whisman et al., 2004) and depression (Whisman et al., 2004). Moreover, anger and hostility have also been reported to contribute negatively to marital relationships (Renshaw et al., 2010). Emotions are divided into two types: primary emotions and secondary emotions that occur voluntarily in response to raw emotions (Jäger & Bartsch, 2006). A meta-emotional experience is composed of negative or positive primary and secondary emotions, such that the object of the secondary emotion is the primary emotion (Norman & Furnes, 2016). Though a number of studies have concentrated on investigating the role of negative emotions in marital relationships, studies are lacking on the role of meta-emotions in marital relationships. The construct of met-emotions is new, however Mitmansgruber et al., (2009) reported two types of meta-emotions – positive meta-emotions comprising compassionate care and interest, and negative meta-emotions comprising anger, contempt/shame, suppression and tough control. Positive affectivity, satisfaction with life, extraversion, openness and agreeableness correlated positively with positive meta-emotions and negatively with negative meta-emotions; conversely, negative affectivity, depression and neuroticism correlated positively with negative meta-emotions and negatively with positive meta-emotions (Mitmansgruber, et al, 2009). However, there is evidence that positive metacognitions and meta-emotions play significant role in healthy marital life like marital satisfaction, marital adjustment, and affectional expression communication, etc (Rani et al., 2017). As such, we hypothesized that positive and negative meta-emotions would also impact on components of marital adjustment. Therefore, the present study aimed to explore the differential effects of positive meta-emotions and negative meta-emotions in spouses' marital adjustment.

## Materials and Methods

### Participants

Six hundred spouses (300 husbands and 300 wives) with at least graduation qualification were sampled by a multi-stage sampling procedure. The first stage of sampling consisted of identification of various locations of Chowk and adjoining areas of Varanasi city of Uttar

Pradesh, India, and initial identification of 600 married couples living together and finally 300 couples were randomly sampled to participate in the study from these previously identified 600 couples. The participants varied in terms of gender (male/female- here termed as husbands/wives), age and length of marriage, family structure (nuclear/joint) and ecological background (rural/urban). The age of the respondents ranged from 21 to 75 years. The mean ( $\pm$ SD) age of husband participants was 39.507 ( $\pm$ 9.190) years and of wife participants it was 35.587 ( $\pm$ 8.580) years. The length of the marriage ranged from 2 to 47 years (mean marital length = 11.920 years; SD = 9.295). There were 91.3% couples from urban and 8.7% couples from rural backgrounds, and 76.7% and 23.3% couples were respectively from joint and nuclear families.

**Measures:** A survey questionnaire was prepared for this study. The questionnaire comprised following scales:

- Dyadic Adjustment Scale (DAS-H; Rani et al., 2019): The Hindi version of Dyadic Adjustment Scale (DAS-H) is based on DAS originally developed by Spanier (1976), consists of 17 items which yields scores on three subscales: (i) Dyadic consensus (DC; the degree to which the couple agree on matters of importance to relationship), (ii) Dyadic cohesion (DCH; the degree to which the couple engages in activities together), and (iii) Dyadic satisfaction (DS; the degree to which the couple is satisfied with the present state of relationship and is committed to its continuance). Spanier (1976) reported fairly high Cronbach's alpha coefficients ranging from 0.73 to 0.96. Most researchers, reasonably enough, simply sum the scales for discrimination purposes of distressed and non-distressed couples (Spanier & Filsinger, 1983). DAS-H has also yielded good acceptable Cronbach's alpha and Split-half reliability indices ranging from 0.73 to 0.85, and good construct and convergent validity. Here it deserves to mention that dyadic adjustment scale has been used to measure marital adjustment among married couples and total score

indicates overall marital adjustment and marital satisfaction.

- Meta-Emotion Scale (MES-H; Jaiswal, et al., 2020): Hindi version of MES consisting of 19 items (MES-H) was used in the present study. It is based on the Meta-Emotion Scale originally developed by Mitmansgruber, et al., (2009) comprising 28 items. The items are rated from 1 = “is not at all true for me” to 6 = “is completely true for me”. The reliability coefficients of positive meta-emotion (Split half = 0.845, Chronbach’s alpha = 0.839, Guttman = 0.824), and negative meta-emotion (Split half = 0.73, Chronbach’s alpha = 0.771, Guttman = 0.770) emerged fairly high. Positive meta-emotion significantly and positively correlated with PMCEQ-H1, PMCEQ-H2 and PMCEQ-H-Total facets of PMCEQ-H, whereas negative meta-emotion correlated negatively with PMCEQ-H3, and PMCEQ-H Total demonstrating its convergent validity.

### Procedure

The survey was conducted face-to-face and, in the language, most preferred by the respondents, which was Hindi. The process of taking their responses started only after establishing adequate rapport with them. It has been also explained to them that they will not receive any tangible benefits by participating in the study and they were made clear that the study is only for scientific research purposes. Firstly, their demographic information was sought and thereafter they were asked about their marital experiences and how they feel about their emotions. They were assured that their responses would be kept confidential and will be used only for scientific research, and by participating in the survey they would not be harmed in any way. After completing the interview, the respondents were thanked for their cooperation in the study.

The study was carried out in accordance with the recommendations of ethical rules and guidelines of Mahatma Gandhi Kashi Vidyapith, Varanasi, India. The protocol was approved by the Departmental Research Committee (DRC) of the Department of

Psychology, Mahatma Gandhi Kashi Vidyapith, Varanasi, India. All subjects gave a written informed consent in accordance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

*Statistical analyses:* The study employed a two-way classification of variables of 2 spouses (husbands and wives) X 2 levels of facets of meta-emotions (low and high scorers) for studies on marital adjustment. To achieve the objectives the participants scoring below  $M - 1$  SD (low scorers) and above  $M + 1$  SD (high scorers) on facets of positive and negative meta-emotions were screened out and their corresponding scores on marital adjustment were analyzed. These overall considerations projected two-way multivariate analysis of variances (2 spouses X 2 levels of positive meta-emotions) and (2 spouses X 2 levels of negative meta-emotions) separately on the basis of multivariate nature of measures of dyadic adjustment.

### RESULTS

The obtained mean and SD values of measures of marital adjustment (dyadic consensus, dyadic cohesion, dyadic satisfaction and dyadic adjustment total) for four groups of (i) husbands scoring low on positive meta-emotions, (ii) husbands scoring high on positive meta-emotions, (iii) wives scoring low on positive meta-emotions, and (iv) wives scoring high on positive meta-emotions; and similarly four groups of (i) husbands scoring low on negative meta-emotions, (ii) husbands scoring high on negative meta-emotions, (iii) wives scoring low on negative meta-emotions, and (iv) wives scoring high on negative meta-emotions, are given in Table 1.

The 2 X 2 MANOVA (2 Spouses X 2 Levels of positive meta-emotions) performed on the scores of the measures of dyadic adjustment revealed significant multivariate main effects of ‘Levels of positive meta-emotions’ Willks’  $\lambda = 0.959$ ,  $F(6/1184) = 4.155$ ,  $p < 0.01$ , and non-significant multivariate main effects of ‘Spouses’ Willks’  $\lambda = 0.996$ ,  $F(3/592) = 0.0881$ ,  $p > 0.05$ ; and interaction effects of ‘Spouses X Levels of positive meta-emotion’, Willks’  $\lambda = 0.977$ ,  $F(6/1184) = 2.304$ ,  $p > 0.05$ .

**Table 1. Means  $\pm$  SD values of measures of positive and negative meta-emotions for four groups on measures of marital adjustment**

Spouses	Levels of positive meta-emotions				Levels of negative meta-emotions			
	Husbands		Wives		Husbands		Wives	
	Levels of positive meta-emotions		Levels of negative meta-emotions		Levels of positive meta-emotions		Levels of negative meta-emotions	
	High (54)	Low (66)	High (46)	Low (48)	High (46)	Low (58)	High (54)	Low (54)
<b>DC</b>	36.24 $\pm 6.92$	34.33 $\pm 6.96$	37.67 $\pm 4.70$	31.65 $\pm 9.76$	34.17 $\pm 6.08$	34.45 $\pm 8.76$	34.74 $\pm 8.68$	38.15 $\pm 6.81$
<b>DCH</b>	15.03 $\pm 3.22$	12.11 $\pm 4.53$	14.75 $\pm 3.85$	13.13 $\pm 3.54$	13.83 $\pm 3.95$	14.07 $\pm 4.11$	12.70 $\pm 5.20$	14.85 $\pm 3.71$
<b>DS</b>	14.36 $\pm 4.54$	13.26 $\pm 4.43$	14.29 $\pm 4.67$	12.17 $\pm 4.36$	12.70 $\pm 4.76$	15.10 $\pm 4.40$	13.96 $\pm 5.08$	15.63 $\pm 4.52$
<b>DAT</b>	65.64 $\pm 1.67$	59.70 $\pm 11.94$	66.71 $\pm 10.29$	56.96 $\pm 15.41$	60.70 $\pm 12.50$	63.62 $\pm 13.11$	61.41 $\pm 16.36$	68.63 $\pm 10.31$

DC = Dyadic consensus, DCH = Dyadic cohesion, DS = Dyadic satisfaction, DAT = Dyadic adjustment total

The obtained results showed significant univariate main effects of 'Levels of positive meta-emotions' for 'Dyadic consensus' ( $F(2/594) = 8.403, p < 0.01$ ), 'Dyadic cohesion' ( $F(2/594) = 9.056, p < 0.01$ ), 'Dyadic satisfaction' ( $F(2/594) = 3.765, p < 0.01$ ) and 'Dyadic adjustments total' ( $F(2/594) = 10.622, p < 0.01$ ), and non-significant main effects of 'spouses' for 'Dyadic consensus' ( $F(1/594) = 0.623, p > 0.05$ ), 'Dyadic cohesion' ( $F(1/594) = 0.463, p > 0.05$ ), 'Dyadic satisfaction' ( $F(1/594) = 0.479, p > 0.05$ ), and 'Dyadic adjustment Total' ( $F(1/594) = 0.254, p > 0.05$ ), and non-significant interaction effects of 'Spouses X Levels of positive meta-emotions' for 'Dyadic consensus' ( $F(2/594) = 2.262, p > 0.05$ ), 'Dyadic cohesion' ( $F(2/594) = 0.839, p > 0.05$ ), 'Dyadic satisfaction' ( $F(2/594) = 0.668, p > 0.05$ ), and 'Dyadic adjustment total' ( $F(2/594) = 0.659, p > 0.05$ ). Post hoc mean comparisons for significant 'Levels of positive meta-emotions' revealed (vide Table 2) that high as compared to low scorer spouses on positive meta-emotions displayed significantly higher 'Dyadic consensus', 'Dyadic cohesion', 'Dyadic satisfaction' and 'Dyadic adjustment total'.

On the other hand, 2 X 2 MANOVA (2 Spouses X 2 Levels of negative meta-emotions) performed on the scores of measures of marital adjustment revealed non-significant multivariate main effects of 'Spouses', Willks'  $\lambda = 0.996, F(3/592) = 0.792, p > 0.05$ , and significant multivariate main effects of 'Levels of negative meta-emotions', Willks'  $\lambda = 0.976, F(6/1184) = 2.460, p < 0.05$  and significant interaction effects

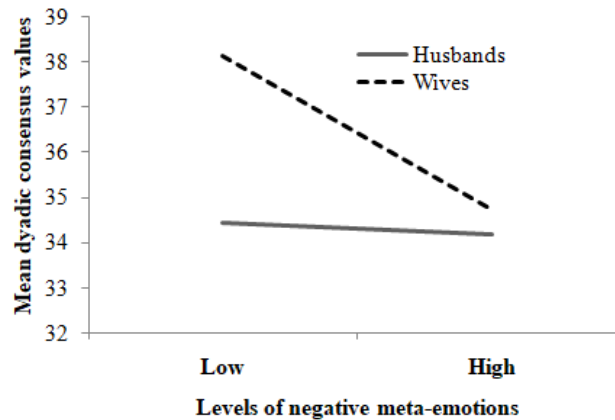
of 'Spouses X Levels of negative meta-emotions', Willks'  $\lambda = 0.957, F(6/1184) = 4.380, p < 0.01$ . The results of univariate analyses indicated non-significant main effects of 'Spouses' for 'Dyadic consensus' ( $F(1/594) = 1.334, p > 0.05$ ), 'Dyadic cohesion' ( $F(1/594) = 0.006, p > 0.05$ ), 'Dyadic satisfaction' ( $F(1/594) = 0.810, p > 0.05$ ) and 'Dyadic adjustments total' ( $F(1/594) = 0.951, p > 0.05$ ), significant main effects of 'Levels of negative meta-emotions' for 'Dyadic cohesion' ( $F(2/594) = 2.623, p < 0.05$ ), 'Dyadic satisfaction' ( $F(2/594) = 6.397, p < 0.01$ ) and 'Dyadic adjustments total' ( $F(2/594) = 5.302, p < 0.01$  except for 'Dyadic consensus' ( $F(2/594) = 2.161, p > 0.05$ ), and non-significant interaction effect of 'Spouses X Levels of negative meta-emotions' for 'Dyadic cohesion' ( $F(2/594) = 1.711, p > 0.05$ ) and 'Dyadic satisfaction' ( $F(2/594) = 1.601, p > 0.05$ ). However, interaction effect of 'Spouses X Levels of negative meta-emotions' was found to be significant for 'Dyadic consensus' ( $F(2/594) = 7.204, p < 0.01$ ) and 'Dyadic adjustments total' ( $F(2/594) = 3.716, p < 0.01$ ). Post hoc mean comparisons for significant effects of 'levels of negative meta-emotions' demonstrated that both high scorer spouses exhibited significantly poorer cohesion, satisfaction and adjustment in marital life than low scorer spouses. Moreover, [post hoc mean comparisons for significant interaction effects of 'Spouses X levels of negative meta-emotions' demonstrated that both high scorer husbands and wives and low scorer husbands on negative meta-emotions exhibited almost similar levels of dyadic

consensus and dyadic adjustment total whereas low scorer wives on negative meta-emotions displayed high marital adjustment in comparison to high scorer husbands and wives (Figure 1 and 2).

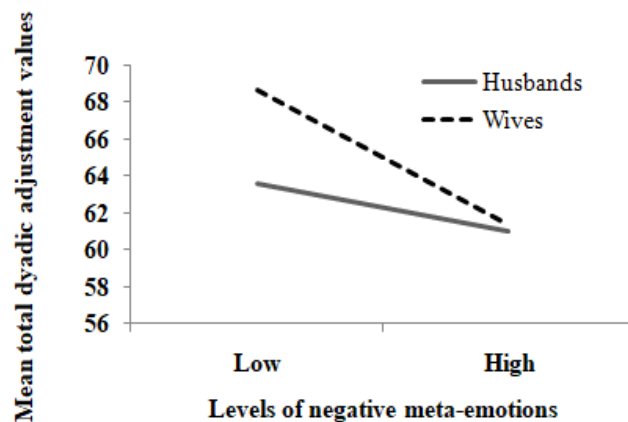
**Table 2. Mean  $\pm$  SD values of facets of dyadic adjustment over 2 Levels (high and low) of positive meta-emotions and negative meta-emotions**

Measures of meta-emotions	Levels	DC	DCH	DS	DAT
Positive meta-emotions	High (114)	36.84 $\pm 6.11$	14.91 $\pm 3.49$	14.33 $\pm 4.58$	66.09 $\pm 11.07$
	Low (100)	33.10 $\pm 8.42^{**}$	12.58 $\pm 4.12^{**}$	12.76 $\pm 4.41^*$	58.44 $\pm 13.65^{**}$
Negative meta-emotions	High (100)	34.48 $\pm 7.56$	13.22 $\pm 4.68$	13.38 $\pm 4.95$	61.08 $\pm 14.65$
	Low (112)	36.23 $\pm 8.06$	14.45 $\pm 3.93^*$	15.36 $\pm 4.45^{**}$	66.04 $\pm 12.05^{**}$

\* and \*\* indicate statistical significance respectively at  $p < 0.05$  and  $p < 0.01$



**Figure 1. Interaction effects of Spouse x Levels of negative meta-emotions on dyadic consensus**



**Figure 2. Interaction effects of Spouse X Levels of negative meta-emotions on dyadic adjustment total**

## DISCUSSION

The findings of the present study reveal that positive and negative meta-emotions complement each other and demonstrate that high positive and low negative meta-emotions do contribute to healthy marital adjustment in spouses whereas low negative meta-emotions in wives caused high marital adjustment. Though direct evidences are not available, however, indirect studies provide corroborative evidences that positive metacognitions and meta-emotions have been reported to result in healthy marital adjustment (Rani et al., 2017; Rani et al., 2018; Hojati et al., 2014). Hojati et al., (2014) also observed that thought control and resiliency respectively correlated negatively and positively with marital satisfaction. Available studies revealed that marital adjustment involves adaptive coping, positive affect and wellbeing, etc., and therefore it can be assumed that occurrence of high level of positive meta-emotions may equip the couples with stress coping skills leading to better adaptation and wellbeing which may reflect in increased marital adjustment. A similar cognitive mechanism may also be conceptualized for the role of positive and negative meta-emotions in marital adjustment. Gottman and Levenson (1992) found that couples demonstrating a high ratio of positive to negative emotional behaviors during a conflict interaction had higher marital satisfaction. Conversely, the tendency to remain in a negative emotional state has been linked with marital distress (Greene & Anderson, 1999). Consistent with these findings, negative affect reciprocity has emerged as one of the most reliable correlates of relationship dissatisfaction (Gottman, 1994). Thus, it can be concluded that presence of high levels of positive and low levels of negative meta-emotions skills in spouses may help overcome the hassles of married life leading to a better marital adjustment.

An important finding of the present study is that high positive meta-emotions facilitated and high negative meta-emotions hindered marital adjustment in spouses, and low negative meta-emotions had differential effects on marital adjustment in wives and not in husbands, and high scorer wives demonstrated marital adjustment almost equal to low and high scorer husbands but low scorer wives on negative meta-emotions

exhibited higher marital adjustment (Fig 1 and 2). Literature is scanty on gender based differential effects of low negative meta-emotions on marital adjustment in spouses; however, a substantial body of research has suggested a potential link between negative affectivity or neuroticism and marital dissatisfaction (see reviews by Karney & Bradbury, 1995; Malouff, et al., 2010). Higher neuroticism has also been found to be a risk factor for the disposition of symptoms of depression, anxiety and anger (Baron et al., 2007; Renshaw, Steketee, & Chambless, 2005; Whisman, 2001) which have also been reported to be negatively related to marital satisfaction (Baron et al., 2007; Renshaw, Steketee, & Chambless, 2005; Whisman, 2001). It has been suggested that chronic emotional upset or reactivity stemming from marital arguments is the key link between interpersonal conflict and psychological distress (Lazarus, 1999; Lazarus & Folkman, 1984). Research has demonstrated that emotional distress which stems from a marital argument is more pronounced for wives than husbands (Almeida & Kessler, 1998; Bolger et al., 1989). This finding may provide an explanatory basis for the present finding that if wives are less negatively reactive than husbands to marital problems consequently this will result in their higher perceived marital adjustment in terms of higher dyadic consensus and overall dyadic adjustment. Dyadic consensus reflects agreement on issues of marital life, and dyadic adjustment comprises consensus, communication and satisfaction in marital life which in turn might have increased marital adjustment in low scorer wives on negative meta-emotions. The findings also indicate flexibility in their negative emotional reactivity in wives towards marital adjustment. At the same time the findings also raise a question whether husbands lack this flexible negative emotional reactivity towards the components of their marital life? There are some studies that have indicated differences in cognitive emotional processing in males and females. It is widely reported that females are more sensitive to facial emotions in comparison with males (McClure, 2000; Donges et al., 2012; Erol et al., 2013; Lee et al., 2013; Weisenbach et al., 2014). Such behavioral advantage was also observed in adolescence with girls being more sensitive to facial emotions than boys (Lee et al., 2013). A recent meta-analysis

study showed that the medial prefrontal cortex, anterior cingulate cortex, frontal pole and the thalamus were more recruited in men relative to women during emotion perception, while women showed distinct activation in bilateral amygdala, hippocampus and some regions of the dorsal midbrain (Filkowski *et al.*, 2017), suggesting that males tend to recruit bilateral prefrontal regions involved in rational thinking and cognitive control whereas females tend to recruit bilateral amygdala involved in quick emotional evaluation (AlRyalat, 2017). Chen *et al.*, (2018) have reported that females are more sensitive to emotional expressions in real interpersonal interactions, which is manifested in both early motivational salience detection and late conscious cognitive appraisal stages of feedback processing. Bloch, Haase and Levenson (2014) found that greater down regulation of wives' negative emotion following negative emotion events was associated with greater levels of current marital satisfaction for husbands and wives as well as greater future levels of marital satisfaction for wives whereas minimal relationship between down regulation of husbands' negative emotion and current marital satisfaction of husbands and wives. These findings support the observations of the present study why only wives with low negative meta-emotions displayed increased marital adjustment. These gender differences in negative emotion regulation and negative meta-emotions is consistent with the literature and highlights the supremacy of wives' competence over husbands' in regulating the affective balance in marriage (Gottman & Notarius, 2000). These findings may also explain finding of the present study why husbands with low and high negative meta-emotions displayed similar levels of marital adjustment in the present study. It may be because they cannot regulate their negative meta-emotions. These researches indicate that females may monitor their negative emotions better than males making them less reactive to their primary negative emotions and contributing to their increased marital adjustment. However, more studies are needed to answer the observed gender based differential effects of negative meta-emotions in marital adjustment.

This study has both its strength and limitations. Its strengths are in its selection of

independent variable design. This the first study exploring the effects of meta-emotions on marital adjustment by employing two levels of both positive and negative meta-emotions for husbands and wives. Since the present study was conducted on normative samples of husbands and wives, therefore before making any generalization more studies are needed on more heterogeneous groups of husbands and wives including divorced or separated couples and couples living in conditions of marital discord. The sample was limited to only Hindi speaking married couples of one part of India. Thus the results may not generalize to married couples of other geographic regions of India (where a number of languages are spoken and varied rituals are followed) and other countries, which may differ in ethnic, educational, socioeconomic factors and belief systems particularly about marriage and marital life. Therefore, studies are required employing other psychosocial constructs and measures of marital quality with meta-emotions to elucidated the process of gender based differential effects of positive and negative meta-emotions on measures of marital quality.

#### **Disclosure statement**

The authors report no potential conflict of interests.

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