

Factors Influencing Marital Satisfaction among Christian Couples In Indonesia: A Vulnerability-Stress-Adaptation Model

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Abstract

The present study tested the effect of neuroticism, internal perceived stress, and positive dyadic coping on marital satisfaction among Christian couples in Indonesia, guided by the Vulnerability-Stress-Adaptation model (VSA). The effects of neuroticism, internal perceived stress, and positive dyadic coping on marital satisfaction were investigated using an Actor-Partner Interdependence Model (APIM) and the calculation was done using multilevel modelling (MLM). Self-report data were collected from 203 couples in Indonesia. The results show that internal perceived stress and positive dyadic coping for males (husband) and females (wife) were the predictors of their respective marital satisfaction. Moreover, females' marital satisfaction was affected by her spouses' internal perceived stress. Males' marital satisfaction was affected by his own level of neuroticism. The implications of the findings were discussed.

Keywords: Marital Satisfaction, Neuroticism, Internal Perceived Stress, Positive Dyadic Coping, VSA, APIM, MLM, Indonesia.

Introduction

Marital satisfaction is a topic of interest for many researchers who specialize in the study of relationships in the family. Specifically, marital satisfaction affects other areas of human life (i. e., physical and emotional health, relationship between parent and children) (Fincham & Beach, 1999). There are several models used to explain marital satisfaction in research. However, the widely used model is the Vulnerability-Stress-Adaptation model of marriage (VSA) (Bradbury, 1995). The advantage of this model is that it has received enough empirical support and its comprehensiveness. It reflects the diverse intrapersonal, interpersonal, and external factors that impinge marital satisfaction. According to this model, there are three broad categories of factors that affect marital satisfaction namely: Enduring vulnerability, stressful events, and adaptive process. hence, marital satisfaction depends on the interplay among enduring vulnerabilities, stressful events, and adaptation (Bradbury, 1995).

Enduring vulnerability is a stable characteristic that each spouse brings into marriage. In this Neuroticism was chosen to represent enduring

vulnerability, because Neuroticism is one dimension of personality trait that has the biggest effect on marital relationships (Piedmont, 1998).

Stressful events are developmental transitions, situations, incidents, and chronic or acute circumstances that make couples distress (Bradbury, 1995). Majority of the studies in stressful events examine the effect of major stressful events (i.e., such as serious illness, infidelity or loss of job) to marital satisfaction (Pai et al., 2007). The present study focused on assessing minor stress anchored on Bodenmann (2009) prediction that it has a stronger effect on marital satisfaction.

Adaptive process is the way spouses treat and respond to each other. Studies on adaptive process usually concentrate on communication behavior (Bradbury, Rogge, & Lawrence, 2001). The researchers found that certain types of marital interaction were strongly related to marital dissatisfaction (Caughlin, 2002; Eldridge & Christensen, 2002; Gottman, 1994). However, recent studies place their attention to the coping process of the couple. Bodenmann (2005) conducted meta analysis on 13 studies that examined the role of coping in marital relationships and found that positive dyadic coping was related with higher marital satisfaction, with dyadic coping contributing 30% - 40 % of the variance (Bodenmann, 2005). Given the important role of dyadic coping, it was chosen to represent adaptive process.

Most of the studies on marital relationship especially in Indonesia still use an individual approach which assumes characteristics of the actor will influence the satisfaction of his/her. This approach usually utilize simple correlational analyses or ordinary multiple regression that fail to consider the interdependence of husband and wife (Reis, Capobianco & Tsai, 2002). In contrast, the present study used dyadic data analysis that enable the researcher to examine the interdependence of the spouse. For example, how the characteristics of both the self (i.e., the actor) and the marriage partner (i.e., the partner) influence the actor's self-reported marital satisfaction (Kenny, Kashy, & Cook, 2006).

The present study tested how neuroticism and internal perceived stress affected marital satisfaction through dyadic coping. The analysis was guided by Actor-Partner Interdependence Model (APIM). APIM is used for basic dyadic analysis: When there is one actor and one partner such as in marital relationship (one husband and one wife). This model has dyad as its unit of analysis and proposes that the outcome of an individual depends on his or her own independent variables as well as his or her partner independent variables. There are two effects in APIM: Actor effect and partner effect. Actor effect is the influence of a person's independent variables to his/her dependent variables. On the other hand, partner effect is the influence of a person's independent variables on his/her partner dependent variables (Kashy, 2006). Multilevel modelling was used to estimate APIM's parameters.

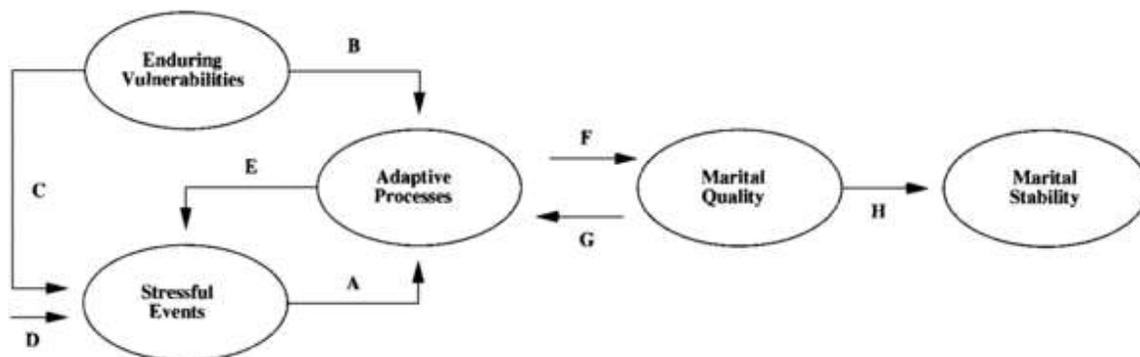


Figure 1. Vulnerability-Stress-Adaptation Model. Taken from “Assessing the four fundamental domains of marriage,” by T.N. Bradbury (1995), *Family Relations*, 44, p. 461. Copyright 1995 by the Family Relations.

This current study did not test the VSA model. The VSA model was used as a framework to anchor this study. It helps in the selection of variables and the relationships among variables. However not all paths were tested. This present study only tested path A, B, C and F, because the focus of this study was on marital satisfaction.

Marital Satisfaction

Marital satisfaction in this research is conceptualized as a subjective evaluation of the marital relationship. It does not evaluate any behavior observation, such as how well they communicate to each other, or how they solve their differences. This conceptualization is called unidimensional measure of marital satisfaction. Most of the recent study on marital satisfaction used this conceptualization because it gives “a clear cut interpretation, this approach allows the antecedents, correlates, and consequences of marital happiness to be examined in a straightforward manner” (Fincham, 2009, p. 596).

Marital relationship is influenced by norms, customs, and expectations derived from culture. Therefore, the concept of marital satisfaction in Indonesia can be different from the concept of the same in western country because of the differences in culture. However the studies of Jones (2004) and Lucas et al. (2009) indicated that in general marital satisfaction in Indonesia will not be much different from that in western country. Tamimi, Jaswal, Grau, and Banse (2009) also found that VSA model are universal. Integrating the results of three studies above it can be concluded that in general marital satisfaction of Indonesian couples can be explained by the VSA model. However, compare to other studies conducted in other countries, it is possible that there will be some differences in some paths.

Stress in Marriage

Couples are highly interdependent. Therefore, the distress of one partner may influence the other partner also (Cutrona & Gardner, 2006). Hence, stress in marital relationship is better conceptualized as dyadic stress. Dyadic stress is defined as stressful events or circumstances that affects both partners (Bodenmann, 1995). Randall and Bodenmann (2009) differentiated stress according to its source, namely: External and internal. External stress is stress that originates outside the relationship, such as problem in the workplace, neighbourhood, extended family or children. This type of stress does not have a direct effect on marital relationship and its effect is mediated by internal perceived stress (Neff & Karney, 2005). Internal stress on the other hand is stress that originates within the relationship, such as differences in goals, needs, habits, or worry about their spouse well-being (Bodenmann, & Cina, 2005). This type of perceived stress has a direct effect on marital relationship. Therefore, this study focused on internal perceived stress (Ledermann, Bodenmann & Bradbury, 2010).

Neuroticism

Neuroticism is a dimension of trait that measure emotional stability of a person. Costa and McCrae (1992) called neuroticism as “the most pervasive domain scales contrasts adjustment or emotional stability with maladjustment or neuroticism” (p. 14). Therefore, level of neuroticism has a positive correlation with sensitivity to stress. Someone with higher level of neuroticism will be easier to be distressed compare to whom with lower level of neuroticism (Watson, 2000). Most of the studies on the effect of neuroticism on marital satisfaction found that this dimension of big five traits has a negative effect on marital satisfaction. The higher the level of neuroticism the lower is the marital satisfaction (Malouf, 2010).

Dyadic Coping

Bodenmann based his theory of dyadic coping on the transactional stress theory of Lazarus and Folkman (1984). But he expanded it to systemic and process-oriented dimensions. Couples are interdependent where they are reciprocally influencing each other. The way one partner thinks about the problem and tries to solve the problem will influence the other partner. The same is true with the success of their problem solving (Bodenmann, 1995; Cutrona & Gardner, 2006). Bodenmann (2005) wrote “one cannot examine one partner’s stress appraisals or coping efforts without considering the effects on the other partner and the marriage” (p. 36). Bodenmann (2005) distinguishes between positive and negative dyadic coping. However, this study focuses only on the positive type of dyadic coping.

Positive dyadic coping includes positive supportive dyadic coping, common dyadic coping, and delegated dyadic coping. Positive supportive dyadic coping and common supportive dyadic coping can be either problem-focused or emotion-focused dyadic coping. In positive supportive dyadic coping one partner helps their spouse in distress with his/her coping efforts. It can be offering practical help, giving practical advice, giving emotional support, empathic understanding, or helping the partner reframing the situation. In positive common dyadic coping both partners are more or less symmetrically participate in their coping process to solve the problem they encounter. It can be joint problem solving or equal division of task, mutual solidarity, common religious activity, or joint relaxation exercises. Lastly, in delegated dyadic coping one partner take over tasks or responsibility of their spouse in order to reduce their partner stress. This type of dyadic coping is usually used to handle problem-oriented stressors.

Relating Neuroticism, Internal Perceived Stress, and Positive Dyadic Coping

Semmer (2006) proposed Neuroticism can influence internal perceived stress through four mechanisms: (1) exposure to stressors, (2) appraisal of the stressors, (3) reaction to the stressors, and (4) coping with the stressors.

Individuals high in neuroticism tend to be hostile, critical, and demanding. As a result, they are more likely to get negative responses from their environment. Therefore, compare to individuals with low levels of neuroticism, individuals with high levels of neuroticism are more likely to encounter stressful interpersonal events (Bolger & Zuckerman, 1995 ; Magnus, Diener, Fujita, & Pavot, 1993). Individuals who have high levels of neuroticism also tend to report higher levels of behavioral and functional impairment of their spouse, unrelated to the actual sickness of their spouses (Bookwala, & Schulz, 1998). Neuroticism has a high reactivity to negative affect. Stressors will induce negative affect. As a result neuroticism can magnify the impact of negative events. Compared to people with low levels of neuroticism, people with high levels of neuroticism tend to react stronger to stressors (Bolger & Zuckerman, 1995; Bookwala, & Schulz, 1998).

Lastly, neuroticism can influence the type of coping people used in time of distress. Individuals high on neuroticism have a high reactivity to stressors, therefore, they have a tendency to experience negative emotions (Watson, 2000). Hence, it is likely they use emotion-focused coping strategies in order to manage their own distress (Lee-Baggley, Preece, & DeLongis, 2005). As a result they have difficulty in empathizing with others when distressed. In the context of close relationship, they tend to choose maladaptive coping strategies such as confrontative coping or escape avoidance (DeLongis & Holtzman, 2005). Therefore, it is likely individual high on neuroticism will not use positive dyadic coping.

Relating Internal Perceived Stress and Positive Dyadic Coping

The transactional stress model of Lazarus (1984) implies that situations can influence coping strategies. Coping is considered as a dynamic process that changes over time depending on the stressors and appraisals of the individuals at that time. Hence, type of stressors and appraisals of those stressors may influence coping strategies used by individuals (Moos & Holahan, 2003).

Bodenmann (2009) have similar conception about the effect of stressors and appraisals of stressors on coping strategies. Stress reduced individuals' ability to deal effectively with problem (Neff & Karney, 2009). Under stress, individual tends to be easily angry and impatience. They are likely to pay attention to their own well being and pay less attention to their spouse problem (Randall & Bodenmann, 2009). Hence, it is predicted that internal perceived stress will have a negative effect on positive dyadic coping.

Relating Neuroticism and Marital Satisfaction

Couples bring to their marriage their own level of enduring vulnerabilities (neuroticism). Huston and Houts (1998) predicted that one's level of those characteristics as well as the characteristics of their partner will shape the psychological infrastructure of their marriage. Their marital relationship is influenced by these traits (Malouf, et al., 2010). Neuroticism is one of the personality traits that usually have a bad influence on marital satisfaction. Individuals high on neuroticism tend to be distress easily and to show negative behaviors under stress. Therefore, this trait is usually related to marital dissatisfaction (Bradbury, Fincham & Beach, 2000; Caughlin, Huston & Houts, 2000). Malouf et al. (2010) did a meta-analysis on the effect of partners' trait to marital satisfaction, using a total of 3848 respondents from 19 samples. The method used was zero order correlation without controlling actor effect. They found that neuroticism ($r = -.22$) has the highest correlation.

Neuroticism is not only affect marital satisfaction of individuals but also marital satisfaction of their partner. Having a partner with a high level of neuroticism tends to decrease marital satisfaction, because individuals with high level of neuroticism tend to express behaviors such as: criticism, contempt, defensiveness, and stonewalling. These behaviors are known to have a detrimental effect on marital relationship (Gottman, 1994). There is no gender difference on the partner effect of neuroticism. Both husbands and wives are affected by the level of neuroticism of their partner (Robins, Caspi, & Moffitt, 2000).

Charania (2006) and Dyrenforth, Kashy, Donnellan, and Lucan (2010) did similar studies but employed a better method. They measured the partner effect while controlling the effect of actor effect. Dyrenforth (2010) used large

samples from Australia and United Kingdom. They found the significant effect of actor neuroticism on their level of marital satisfaction. However, the partner effect of neuroticism on marital satisfaction of their partner gave conflicting results. Charania (2006) did not find significant partner effect of Neuroticism, while Dyrenforth (2010) found a significant partner effect of neuroticism on marital satisfaction, although the magnitude is smaller than that of actor effect

Relating Internal Perceived Stress and Marital Satisfaction

Stressful life events that are perceived by couples may add problems to couples' relationship. Under stress individuals tend to withdraw or to show hostile behavior. Hence, their communications are disturbed. Stress also reduces positive interactions between couples (Cohan & Bradbury, 1997; Frye & Karney, 2006). Those behaviors will reduce their marital satisfaction.

Ledermann, Bodenmann, Rudaz and Bradbury (2010) did a cross sectional research to study the effect of stress on marital satisfaction. They found that internal stress has a significant negative effect both for actor and partner effect for husband and wife. Higher internal stress on one spouse will decrease marital satisfaction of the other spouse and vice versa.

Relating Positive Dyadic Coping and Marital Satisfaction

Enduring vulnerabilities and stressful life events will influence marital satisfaction through adaptive process (dyadic coping). Through this adaptive process, couples will try to solve the entire problem in their relationship. This adaptive process in the end will affect marital satisfaction.

Positive dyadic coping is effective in reducing stress and improving the quality of relationship because individuals with high level of positive dyadic coping tend to help their partner in time of distress and also believe that their partner will do the same (Bodenmann, 2005).

Positive dyadic coping also is also likely to have a significant partner effect on marital satisfaction. Individuals with high level of positive dyadic coping is likely to help their partner and do not pay attention only on their own interest. This positive behavior is likely to improve the marital satisfaction of their partner. However, there is a gender difference on the partner effect of positive dyadic coping on marital satisfaction. Only males' positive dyadic coping has a significant partner effect on their wives' marital satisfaction. Males' marital satisfaction is not depending on their wives' positive dyadic coping (Bodennman, 2006).

Purpose of the Study

The goal of the present study is to investigate the predictors of marital satisfaction among Christian couples in Indonesia following Vulnerability-Stress-Adaptation model (VSA) (Bradbury, 1995). As mentioned in the review of related literature VSA provided an appropriate framework for understanding marital relationships: neuroticism together with internal perceived stress affect marital satisfaction through positive dyadic coping. The type of dyadic analysis chosen was Actor-Partner Interdependence model (APIM) (see Figure 2). This model pays attention both on the characteristics of husbands and wives and the interdependence of the couples. Therefore, this model enables the researcher to capture both actor effect and partner effect. The actor effect focuses on the effect of the individual's own predictors on the individual's outcome (i.e., the effect of husband's agreeableness on his marital satisfaction), while the partner effect focuses on the effect of the individual's own predictors on the partner's outcome (i.e., the effect of husband's agreeableness on his wife's marital satisfaction). Hence, it is likely this perspective can give more accurate picture of marital relationship compared to the separate model. (Charania & Ickes, 2009).

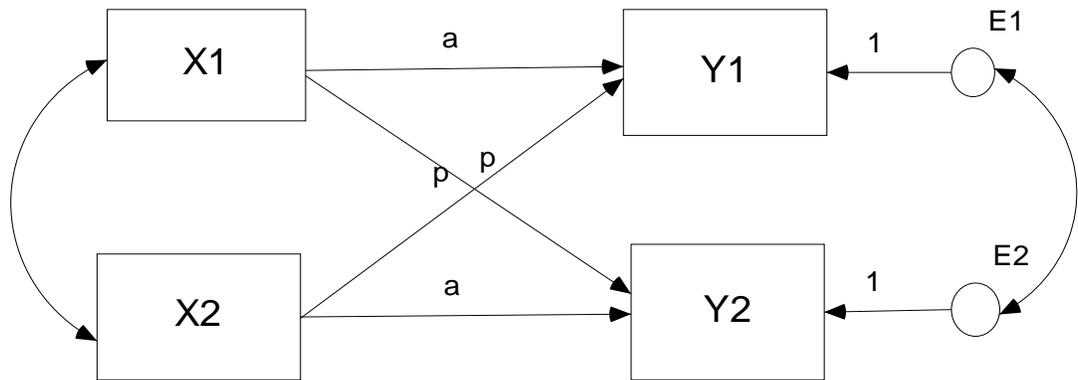


Figure 2. APIM Model. There are two members of the dyad (1 and 2), one independent variable (X) and one dependent variable (Y). E represent error variance which is not explained by the APIM. a is the actor effect while p is the partner effect.

The framework for the analysis is illustrated in Figure 3.

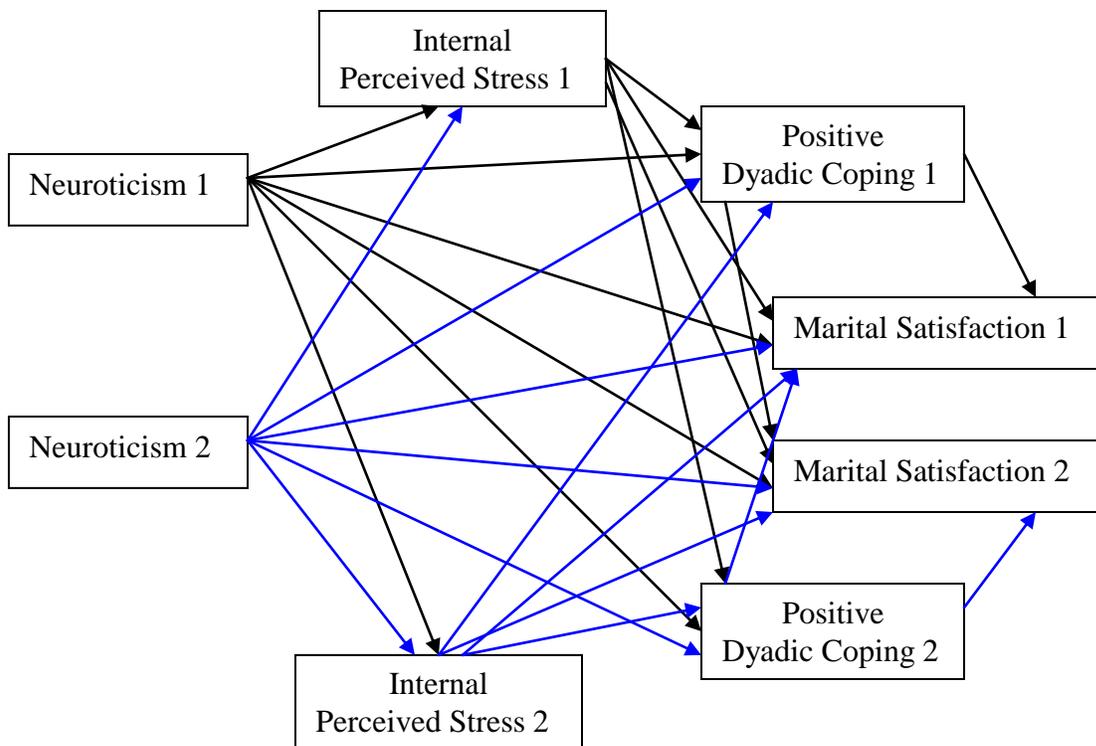


Figure 3. Relationships among neuroticism-internal perceived stress-positive dyadic coping-marital satisfaction (dyadic analysis –both husband and wife). Coding: 1= male, 2=female. Black arrow is male effect, and blue arrow is female effect

Specifically, it tested several hypotheses:

1. Actor’s neuroticism, internal perceived stress, and positive dyadic coping have a significant effect on both actor and partner marital satisfaction.
 - a) Actor’s neuroticism has a significant negative effect on both actor and partner level of marital satisfaction.
 - b) Actor’s internal perceived stress has a significant negative effect on both actor’s and partner’s marital satisfaction.
 - c) Actor’s positive dyadic coping has a significant positive effect on both actor’s and partner’s marital satisfaction.
2. Actor’s neuroticism and internal perceived stress have a significant effect on both actor’s and partner’s positive dyadic coping.
 - a) Actor’s neuroticism has a significant negative effect on both actor’s and partner’s positive dyadic coping.
 - b) Actor’s internal perceived stress has a significant negative effect on both actor’s and partner’s positive dyadic coping.
3. Actor’s neuroticism has a significant effect on both actor’s and partner’s internal perceived stress.

Method

Participants

The participants of this study were members of churches in Jakarta, Bandung, Jogjakarta and Surabaya. Those four city are big cities in the island of Jawa where many Christian live. The inclusion criteria were: (a) the respondents should be married for at least one year; and, (b) both husband and wife should participate in the study.

The number of participants was guided by the recommendation given by Ackerman, Donnellan and Kashy (2010). Given the alpha level is .05 and power is 80% and considering the expected actor/partner effect β ranges from .2 (trait to marital satisfaction) to .5 (dyadic coping to marital satisfaction), while the expected expected within-dyad associations for independent variables (r_x) is .2 and within-dyad associations for dependent variable (r_y) is .6 (Ackerman, 2011; Bodenmann, 2005), the minimum sample size is 180.

There were 230 couples returned the questionnaire. However, data from 27 couples were rejected because of several reasons, i.e., only one partner answer the questionnaire, left out demographic information. Hence, the total numbers of respondents used in analysis were 203 couples, which fulfilled the needed sample size. Their ages ranged from 20 to 60 years with an average of 41.7 years ($SD=7.9$). The length of marriage ranged from 1 to 39 years with an average of 13.9 ($SD=7.9$). The majority of the couples had two children. The ethnic background of these respondents was: 57.6 % Chinese Indonesian, 20.4 % Jawa, 13.8 % Batak, and the other 8.2 % consists of Minahasa, Timor, Maluku and mixed-ethnic. More than 59 % of the respondents had college degree and more than 11 % had masteral degree. Among the 406 respondents 31 % had a montlhy family expenses more than Rp. 10.000.000, 26 % between Rp. 6.000.000 – Rp. 10.000.000 and 26% between Rp. 3.000.000 - Rp. 6.000.000. None of these demographic variables have significant correlation with marital satisfaction.

Instruments

Demographic Questionnaire. The respondents were asked about their age, gender, ethnic, years of marriage, household income, number of children, and highest educational attainment.

Big Five Inventory (BFI). The BFI was used to assess the neuroticism of the participants. BFI is a brief inventory to assess five dimension of Big Five personality developed by John, Donahue, and Kentle (1991). It is consisted of 44 items, five point likert scale. BFI has excellent psychometric characteristics, including internal consistency, temporal stability, and

construct validity. The Cronbach's alphas of the five dimensions were: Extroversion (.86), Agreeableness (.79), Conscientiousness (.82), Neuroticism (.87) and Openness (.83). The authors already approved the five factor structure using Confirmatory Factor Analysis (CFA) of this instrument. They found standardized validity coefficient for extroversion, agreeableness, conscientiousness, neuroticism, and openness as the following: .94, .92, .92, .92, .90, and .92 (John & Srivastava, 1999). In the current study acceptable alpha levels were found for all five dimensions: Extroversion (.75), Agreeableness (.73), Conscientiousness (.75), Neuroticism (.75) and Openness (.72) (see Appendix 4-6).

Dyadic Coping Inventory. The *Dyadic Coping Inventory* was used to measure dyadic coping strategies of participants. The DCI is a self-report instrument consisting of 37 items, with responses arranged on a 5-point likert-type scale. The instrument measures perceptions of one's own dyadic coping behaviors and perceptions of the partner's dyadic coping behaviors. Although the instrument contains nine subscales, only the two scales (positive dyadic coping and negative dyadic coping) were used in analyses for this study.

The instrument has shown evidence of very good internal consistency (.89 for positive dyadic coping and .77 for negative dyadic coping), and has undergone a factor analysis test (Bodenmann, 2008). In this study acceptable alpha level were found for both positive dyadic coping (male = .76, female = .75) and negative dyadic coping (male = .77, female = .76) (see Appendix 7-9).

Relationship Assessment Scale (RAS). The RAS was used to assess the marital satisfaction. This inventory was developed by Hendrick (1988). It consists of 7 items, 5 point likert. The internal consistency was high with alpha = .86. RAS has good concurrent validity. It significantly correlated with a number of subscales of Love Attitude Scales and Dyadic Adjustment Scale. This instrument also has a good predictive validity. It can distinguish between couples who will stay and who will divorce (Fisher & Corcoran, 2007). In the current study acceptable alpha level were found (male = .77, female = .77).

Multidimensionnal Stress Questionnaire for Couples (MSF-P). The MSF-P was used to assess perceived stress. This inventory was developed by Bodenmann (2007) for analyzing the relationship between different type of perceived stress and dyadic coping in marital relationship. Although there are six subscales in this instrument, only one subscale will be used in this study (internal and external). Confirmatory Factor Analysis (CFA) was performed through AMOS on the two scales of MSF-P and a two-factor structure was proven with adequate fit (RMSEA = .074 and RMR = .034). In

the current study, acceptable alpha level were found for internal perceived stress (male = .77, female = .76).

Procedure

Translation of inventories. Most of the respondents do not understand English language well therefore all the inventories were translated into Indonesian. The method of translation used was back-translation design.

Data collection procedures. The researcher either met the respondents directly or the contact persons who would help in gathering data. In both methods of data gathering, the interested participants were given informed consent and a set of inventories. After they returned the inventories, they were given debriefing information.

Data Analysis

Data screening was done to check for accuracy of data entry, missing values, and the assumptions of multivariate analysis. After that all scores were centered using the grand mean. The grand mean was computed from husband and wife data. Centering was advisable in APIM to make the data has a meaningful zero (Kenny & Kashy, 2006).

The data was analyzed using Actor-Partner Interdependence Model (APIM) and APIM parameters were estimated using multilevel modeling. This analysis would produce estimate and level of significance. As per Kenny (2010) suggestion, all variables were standardized by transformed it to Z-score in SPSS. This transformation would transform the estimate to beta weight.

Before the APIM analysis was done, the data need to be checked for distinguishability. The husband and wife data in this research are conceptually distinguished (husband and wife), however it may not be empirically distinguished (Kenny & Kashy, 2006). Therefore the data was tested using Omnibus Test of Distinguishability. This test was done according to the steps given by Kashy and Donnellan (2012). It consists of two tests: The first test treated the model as distinguishable dyads and the second test treated the model as indistinguishable dyads. A chi-square difference test then was computed. The result of chi-square difference test was $\chi^2(6) = 13.082, p < .05$. Therefore, the dyad members in this study were distinguishable, APIM for distinguishable dyad were used. The analysis was done using Multilevel Modeling (MLM). Multilevel Modeling is a tool used for analyzing hierarchical nested data.

Results

The descriptive statistics and dyadic analysis were obtained. Table 1 presented the means and standard deviation for all variables under study. There were no significant differences between males and females on all variables except for neuroticism ($t = -3.74, p < .01$). Females tend score significantly higher on neuroticism compared to that of males.

Table 1
Means and Standard Deviations for Males and Females

Variables	Males		Females		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Neuroticism	2.48	.66	2.71	.70	-3.74*	<.01
Internal Perceived Stress	1.82	.53	1.88	.55	-1.65	.10
Positive Dyadic Coping	2.92	.57	2.97	.53	-1.47	.14
Marital Satisfaction	4.22	.50	4.16	.54	1.38	.17

* $p < .05$

Dyadic Analysis

The result of MLM test for distinguishable dyads. The parameter estimates were presented in Figure 4, only the significant estimates were displayed.

It was hypothesized that actor's neuroticism, internal perceived stress, and positive dyadic coping have a significant effect on actor's and partner's marital satisfaction (hypothesis 1). This hypothesis was partially supported. Only males' neuroticism ($\beta = -.17, \rho < .05$), internal perceived stress ($\beta = -.33, \rho < .5$), positive dyadic coping ($\beta = .28, \rho < .5$) had significant actor effect on males' marital satisfaction, and none of females' characteristics have significant partner effect on males' marital satisfaction. For females' marital satisfaction, none of males' and females' neuroticism has a significant effect on females' marital satisfaction. However, males' internal perceived stress has a significant partner effect on females' marital satisfaction ($\beta = -.18, \rho < .05$), and females' internal perceived stress has a significant actor effect on females' marital satisfaction ($\beta = -.25, \rho < .05$). Females' positive dyadic coping also has a significant actor effect ($\beta = .37, \rho < .05$) on females' marital satisfaction.

It was hypothesized that actor's neuroticism and internal perceived stress have a significant effect on both actor's and partner's positive dyadic coping (hypothesis 2). This hypothesis was also partially supported. All males' characteristics (neuroticism ($\beta = -.16, \rho < .05$), internal perceived stress ($\beta = -.25, \rho < .05$)) have a significant actor effect on males' positive dyadic coping. However, none of females' characteristic has a significant partner effect on males' positive dyadic coping. For females' positive dyadic coping, only females internal perceived stress ($\beta = -.33, \rho < .05$) has a significant direct effect on females' positive dyadic coping and males' internal perceived stress ($\beta = -.22, \rho < .05$) has a significant partner effect on females' positive dyadic coping.

It was hypothesized that actor's neuroticism has a significant effect on both actor's and partner's internal perceived stress (hypothesis 3). This hypothesis was partially supported, because only actor effects that were supported. Males' neuroticism has a significant actor effect on males' internal perceived stress ($\beta = -.20, \rho < .05$), and females' neuroticism had a significant actor effect on females' internal perceived stress ($\beta = -.19, \rho < .05$). However, none of males' and females' neuroticism has a significant partner effect to their partners' positive dyadic coping.

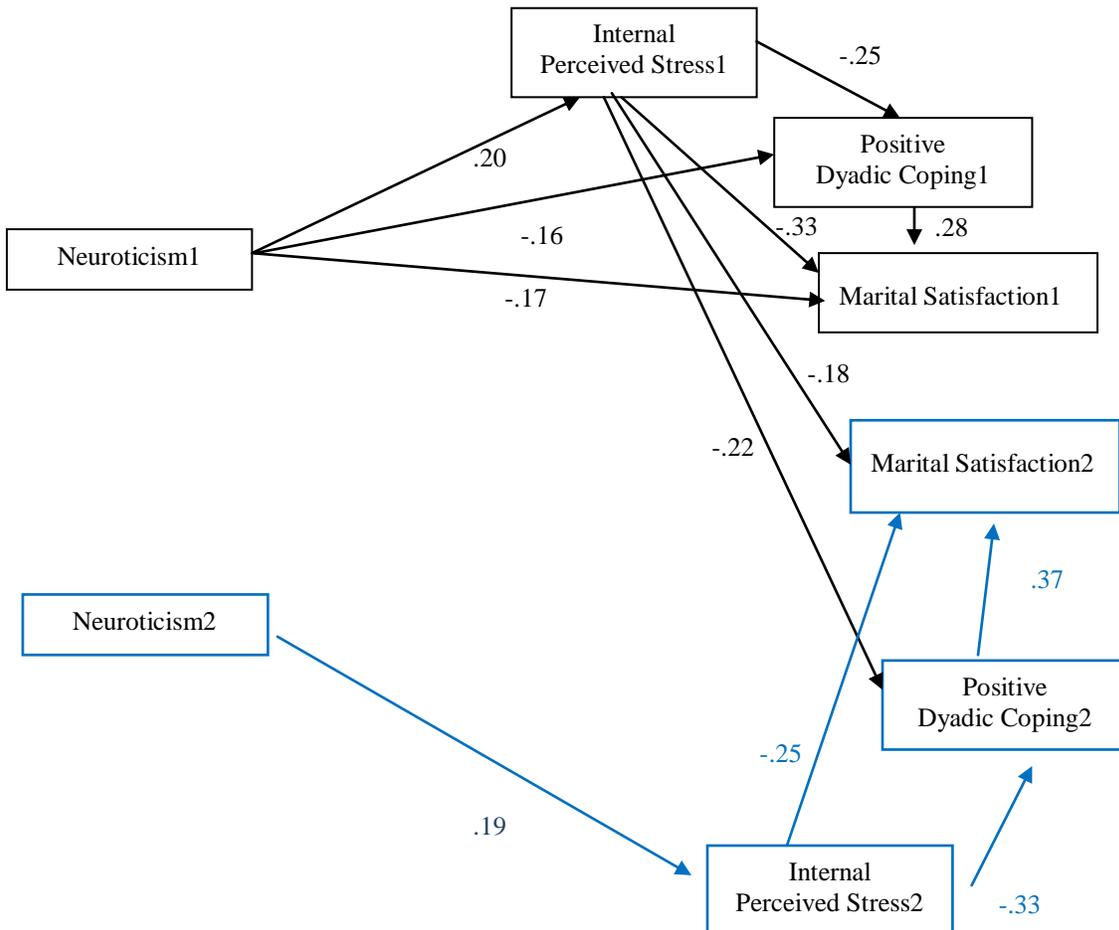


Figure 4. APIM, Coding: 1= male. 2=female. Black arrow is male effect, and blue arrow is female effect.

Discussion

This present study investigated how all three dimensions of the vulnerability-stress-adaptation models affecting marital satisfaction. It was found that marital satisfaction is affected by positive dyadic coping, internal perceived stress and neuroticism. Not only actor effects that are significant but some partner effects are also significant. For example, husbands' neuroticism, husbands' internal perceived stress, husbands' positive dyadic coping, wives' internal perceived stress, and wives' positive dyadic coping have a direct actor effect to marital satisfaction; husbands' internal perceived stress has a direct partner effect to marital satisfaction. Therefore, marital relationship is affected by many factors and it also depends on both members of the couples.

Discussion of the result from the dyadic analysis is divided into three parts: the predictors of marital satisfaction, the predictors of positive dyadic coping, and the predictors of internal perceived stress.

It was found that there were common predictors and unique predictors of marital satisfaction for male and female respondents. Both husbands' and wives' marital satisfaction were positively affected by their own positive dyadic coping and negatively affected by their respective internal perceived stress. These results underscore the importance of dyadic coping and stress in marriage relationship. Positive dyadic coping entails not only the willingness to help their partners in their distress but also the belief that their partner will do the same to them when they need it. Therefore, positive dyadic coping was not only helping couples to reduce stress but also improving their togetherness (Bodenmann, 2005). Hence, their bonds are getting stronger over time. This willingness to be there when needed is also one important part of maintenance behaviors. These behaviors are needed to keep the relationship intact and growing (Canary & Danton, 2009). Therefore, Bodenmann (2005) in his meta-analytic study found that dyadic coping was strongly related to marital satisfaction.

Actors' internal perceived stress was also a significant predictor of marital satisfaction for both husbands and wives. Actor's internal perceived stress not only affects marital satisfaction indirectly through positive dyadic coping but also directly. It means some effects of actors' internal perceived stress can be buffered by dyadic coping but some effects are not. It implies that under great internal perceived stress, no matter how good the couples cope with the stress their marital satisfaction will still be affected. This negative effect of internal perceived stress was consistently supported by previous studies (Bodenmann, 2007, Story, 2006, & Ledermann, 2010).

There were also unique predictors of marital satisfaction for husbands and wives. Husbands' marital satisfaction were affected by their own level of neuroticism (actor effect) while wives' marital satisfaction was only affected by their partners' level of internal perceived stress. In this study, wives' neuroticism has an indirect effect on wives' marital satisfaction through the effect of wives' neuroticism on internal perceived stress and positive dyadic coping. Wives who score high on neuroticism tend to have high levels of internal perceived stress. Neuroticism is related to negative appraisal (Watson, 2000). Therefore, individuals with high levels of neuroticism have a tendency to report situations more stressful than the actual condition (Bookwala & Schultz, 1998). Internal perceived stress has a significant negative effect on marital satisfaction. Individuals with high level of neuroticism tend to have a poor positive dyadic coping. Poor positive dyadic coping, in turn will have a negative effect on marital satisfaction. Hence, even though wives' neuroticism did not have significant direct effect on wives' marital satisfaction; wives' neuroticism was likely to have a bad effect on wives' marital satisfaction.

Wives' marital satisfaction was affected by their partner levels of internal perceived stress. This was consistent with the study of Bodenmann (2007). He found that wives were likely good at absorbing stress but were not good in radiating stress. Therefore, compare to husbands, wives' marital satisfaction were more affected by their partners' perceived stress. This finding was also consistent with the conclusion of Nolen-Hoeksema and Hilt (2009). After analyzing studies on gender differences in depression, they concluded that compare to husbands, wives are more interpersonally oriented. They put their relationship with their husband in high regard. This is especially true for Indonesian wives, which are supposed to take care of the well-being of their husband (see Putranti, 2007). Wives are taught that their primary roles include being a wife and a mother. They are the backbone of the family. Under Suharto's New Order, this type of gender role was reinforced (Robinson, 2009). If something wrong happens in the marriage, usually the society will blame the wife. Hence, Indonesian wives are conditioned to accept that the well-being of their marriage and family are largely their responsibility. Since their childhood most of the Indonesian's wives are taught by their mother to take care of their husband and the family. As a result, Indonesian's wives learn to be sensitive to the sign of discontent from their spouses. They are afraid if this unhappiness is not handled, their marriage will be in trouble and the society will blame them. Therefore, if their husbands are not happy, the wives will be affected by this unhappiness.

Wives positive dyadic coping was not directly predicted by their neuroticism. It is only affected by its internal perceived stress and their husbands' internal perceived stress. This is inline with the study of Nolen-Hoeksema and Hilt (2009) and Putranti (2007). They concluded that females

are more interpersonally oriented compare to males. Their coping behavior is more affected by the quality of their relationship with their husband than by their traits. As a result, females are not only affected by their perception about perceived within the relationship but also by their husband perception of the same.

Positive dyadic coping in either gender were affected by their respective internal perceived stress (actor effect). Stress taxes the individual capacity to process the experience effectively (Neff & Karney, 2009). Therefore, the higher stress perceived by the couple, the lower their ability to engage in positive dyadic coping. Internal perceived stress is a double-edged sword; it enhances the probability to cope negatively and at the same time reduces the chance to cope positively. It implies that great stress will make all marriages suffer. No matter how good are the couples' ability to cope, under great stress their ability may not help much (Bodenmann, 2005; Story & Bradbury, 2009).

Both husbands' and wives' internal perceived stress were also affected by their respective neuroticism (actor effect). Individuals with high level of neuroticism tend to get more exposure to interpersonal stress because they tend to be hostile, critical, and demanding (Bolger & Zuckerman, 1995). They also have a higher appraisal of stressful event compare to that of lower level of neuroticism (Gunthert, Cohen, & Armeli, 1999). Therefore, individuals with high level of neuroticism tend to have more problems in their relationships with their spouse and have a tendency to report it more stressful than the actual condition. Hence, they have a higher level of internal perceived stress compared to that with lower level of neuroticism.

Internal perceived stress affects marital satisfaction through two paths: Indirect effect and direct effect. Internal perceived stress indirectly affect marital satisfaction through dyadic coping. It means some effect of internal perceived stress can be buffered by dyadic coping. If the couples choose to use positive dyadic coping to solve their differences, they can minimize the effect of internal perceived stress to marital satisfaction. However, not all effects of internal perceived stress are buffered by dyadic coping. Internal perceived stress also has direct effect to marital satisfaction. It implies couples need to learn to reduce their stress level. Otherwise, no matter how good their coping skills, under great stress their marital satisfaction will badly affected.

Those results described above imply that neuroticism affecting marital satisfaction through many ways. Neuroticism affect marital satisfaction directly and indirectly through their effect to perceived stress. Moreover, neuroticism does not only have actor effect but also partner effect. Therefore, even though the effect of neuroticism to marital satisfaction is relatively small compared to the effect of perceived stress and dyadic coping to marital satisfaction, neuroticism still play an important effect to marital satisfaction

because traits affect marital satisfaction through many ways (Carver & Connor-Smith, 2010).

Based from the result above, couples who consist of husbands and wives with low level of neuroticism have a low level of vulnerabilities. These couples have a better chance to cope well under stress. Therefore, they tend to have a better marital satisfaction.

Stress in VSA is defined as all circumstances the couples' encounter that may make them distress (Bradbury, 1995). It was found that internal perceived stress had a significant actor and partner effect. Both husbands' and wives' internal perceived stress had a significant effect on their respective positive dyadic coping and marital satisfaction. The higher the couples' levels of stress, the lower their ability to engage in positive dyadic coping. At the same time their chance to engage in negative dyadic coping increase. On the other hand, husbands' internal perceived stress had a significant partner effect on wives' positive dyadic coping and marital satisfaction.

Adaptation in VSA is defined as the way couples handling their differences in opinion or difficulties in marriages. In this study adaptation was represented by positive dyadic coping. It was found that dyadic coping mediates the effect of internal perceived stress to marital satisfaction for both husbands and wives. This result on dyadic coping was in line with the study of Bodenmann (2005). The ability of the couples to work together to cope with the stressors of one or both of the couples is important for the satisfaction of their relationship.

Couples' success and failure in adaptation (dyadic coping) depend on the interaction between vulnerability (neuroticism) and stress (perceived stress) of the couples. Under a trivial stress, differences in the level of vulnerability may not be significant. Couples with little or large vulnerability will survive; although the first type of couples may have a better marital satisfaction. However, under challenging condition where the couples face difficult problems, differences in the level of vulnerability play a major role. Couples with little vulnerability (low level of neuroticism) have several advantages compared to couples with large vulnerabilities. The first type of couples tends to have lower level of internal perceived stress. Couples with little vulnerability also have a better chance to engage in positive dyadic coping. Therefore, couples with little vulnerability have less levels of stress and higher probability of using positive dyadic coping. These two factors make them have a better chance to have a more satisfying relationships compared to couple with high levels of vulnerability.

Couples with little vulnerability have a better chance to have more satisfying relationships under moderate to high stress level. However, under extremely disrupting stress, their marital relationships can be badly affected. Their relationships may be better compared to couple with large vulnerability, but their coping skills do not help much. Besides effect that is

mediated by dyadic coping, internal perceived also has direct effect to marital satisfaction. Under great stress the direct effect of stress to marital satisfaction will be big also. Therefore, no matter how good are their coping skills, under devastating stress couples' marital satisfaction will be badly affected.

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