THE IMPACT OF ANGER AND PTSD ON MARITAL SATISFACTION IN CANADIAN PUBLIC SAFETY PERSONNEL

A Thesis

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Abstract

Canadian Public Safety Personnel (PSP) are regularly exposed to traumatic events in the line of their duties, making them more susceptible to posttraumatic stress disorder (PTSD; APA, 2013; Breslau, Chilcoat, Kessler, & Davis, 1999; Carleton et al., 2017). Examining risk and resilience factors that contribute to the development and maintenance of disorders such as PTSD in PSP is important for prevention and treatment . Anger and marital satisfaction have been identified as having major implications for the development, maintenance, and treatment of PTSD (Forbes et al., 2008; Meffert et al., 2008). In addition to anger being one of the characteristic symptoms of PTSD (APA, 2013), it is associated with increased risk of developing PTSD (Meffert et al., 2008). Marital satisfaction, on the other hand, is a protective factor against PTSD (Vest, Heavy, Homish, & Homish, 2017) and is also associated with lower levels of anger (Vest et al., 2017). This study examined the impact of anger and PTSD on marital satisfaction, while controlling for the confounding effects of depression. The sample included approximately 5813 PSP who participated in a large-scale online survey on mental disorders (Carleton et al., 2017). Symptoms of PTSD, anger, depression and martial satisfaction were assessed using self-report measures. Multiple hierarchical regression analyses identified higher anger ($\beta = -.14$) as a statistically significant predictor of lower marital satisfaction. The results suggest that targeting anger in PTSD screening and treatment may be helpful to improve marital relationship satisfaction, an important source of social support.

Keywords: posttraumatic stress disorder, PTSD, marital satisfaction, anger, public safety personnel

The Impact of Anger and PTSD on Marital Satisfaction in Canadian Public Safety Personnel

Public Safety Personnel (PSP; e.g., police officers, corrections workers, dispatchers, firefighters, Royal Canadian Mounted Police, paramedics) work under highly demanding conditions and are regularly exposed to traumatic events (Haugen, Evces, & Weiss, 2012). Frequent trauma that PSP may experience as a result of their work includes death, illness or injury, sexual violence, physical assault, and transportation accidents (APA, 2013). Due to the increased trauma exposure associated with their occupation (Haugen et al., 2012), PSP are at a higher risk of developing mental health difficulties, including posttraumatic stress disorder (PTSD), compared to the general population (APA, 2013). Carleton et al. (2017) examined the prevalence of mental disorders among Canadian PSP and found that approximately 45% of the sample reported symptoms of at least one mental health disorder. The frequency of positive screens for PTSD was, further, 23.2% in their sample. There is a need for examining risk and resilience factors for mental health difficulties among PSP, such as anger and marital satisfaction, due to the negative impacts of anger on marital satisfaction (Baron et al., 2007), and the protective effects marital satisfaction has against PTSD (Vest et al., 2017).

Trait anger has been associated with an increased risk of developing PTSD (Meffert et al., 2008), as trait anger has been found to predict greater PTSD symptoms over time, while PTSD symptoms have, further, been found to increase state anger (Meffert et al., 2008). Anger has also been shown to play a role in treatment outcomes for PTSD (Forbes et al., 2008). Specifically, when comparing treatment outcomes of individuals with PTSD, research has shown that higher levels of anger are associated with poorer outcomes (Forbes et al., 2008). Anger has also been found to be associated with marital satisfaction. Specifically, marital satisfaction is associated with lower levels of anger (Vest, Heavy, Homish, & Homish, 2017). Martial

satisfaction has been shown to have other implications for PTSD as well, such as decreased symptom severity (Monson, Taft, & Fredman, 2009), but the presence of PTSD symptoms may, vice versa, reduce the quality of intimate relationships (Campbell & Renshaw, 2013). Fostering social support among PSP is important for PTSD treatment, due to the stressful work environment and frequent trauma exposure that make PSP at risk for mental health difficulties, such as PTSD. Therefore, there is a need to clarify the impact of anger and PTSD on marital satisfaction.

PTSD

PTSD refers to impairing clusters of symptoms that may develop following exposure to trauma. Trauma refers to the emotional impact of exposure to events that are highly distressing or disturbing, such as death, serious bodily injury, sexual violence, physical assault, kidnapping, robbery, exposure to war, and natural disasters, among others (APA, 2013). Exposure to trauma can be categorized into direct and indirect exposure. Direct exposure involves experiencing trauma first-hand or witnessing traumatic events as they occur to someone else (e.g., police officers experiencing physical aggression on the job, paramedics responding to death or severe physical injury resulting from motor vehicle accidents). Indirect exposure to trauma, on the other hand, may occur through learning that a close family member or friend has experienced a trauma (APA, 2013).

PTSD symptoms fall into four clusters characterised by intrusion, avoidance, negative alterations in cognition and mood, and alterations in arousal and reactivity (APA, 2013). Individuals who experience intrusive PTSD symptoms may have dissociative reactions, such as flashbacks in which they feel as though the traumatic event were recurring, intrusive memories of the traumatic experience, and nightmares. Avoidance symptoms manifest through avoidance

of external or internal reminders of the traumatic event, such as certain people, places, conversations, thoughts and emotions, objects, or situations. Negative alterations in cognition and mood may include persistent negative emotional states, such as low mood, and excessive guilt. Marked alterations in arousal and reactivity may be characterized by symptoms such as difficulty concentrating, irritable behaviour, and angry outbursts. In order for symptoms to meet the clinical criteria for PTSD diagnosis, one or more intrusion symptoms must be present, as well as persistent avoidance of trauma-associated stimuli, two or more negative alterations in cognition and mood, and two or more alterations in arousal and reactivity for at least one month after the trauma (APA, 2013).

Traumatic events occur frequently in the general population; but, not everyone who is exposed to trauma develops PTSD (APA, 2013). Whereas approximately 50-85 percent of people experience trauma in their lifetime, only about five to eight percent develop PTSD (Alonso et al., 2002; APA, 2013; Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). Among PTSD risk factors is trauma history. Compared to a single traumatic exposure, the risk for PTSD becomes higher with multiple traumatic events. (Breslau et al., 1999; Frans, Rimmo, Aberg, & Fredrikon, 2004). It has been suggested that previous trauma may create a sensitization process, by which the individual is more susceptible to developing PTSD with subsequent trauma. Alternatively, trauma may trigger the development of PTSD in individuals with a preexisting susceptibility (Breslau et al., 1999). This is important for PSP as their job creates the potential for multiple exposures to trauma, thereby increasing their risk for PTSD development.

Gender is another risk factor for PTSD. Women demonstrate a two-fold risk for PTSD compared to men (Ditlevsen & Elklit, 2012), despite men experiencing, on average, more traumatic events (Frans et al., 2004). Gender differences by trauma type have also been

identified. Men are more likely to be in motor vehicle accidents, while women are more likely to experience sexual trauma (Norris, 1992; Smith, Summers, Dillon, & Cougle, 2016). Women have also been found to be more vulnerable to developing PTSD following disasters and accidents (Ditlevsen & Elklit, 2012).

PTSD and Anger

The importance of anger in PTSD has increasingly been underscored, as anger has strong implications for both the development and treatment of PTSD. In samples of military personnel, individuals with PTSD score higher on measures of anger compared to those without PTSD (Taft, Street, Marshall, Dowdall, & Riggs, 2007; Worthen et al., 2015). Higher levels of anger at the beginning of PTSD treatment have also been linked to negative treatment outcomes, with higher levels of anger at intake predicting more persistent PTSD symptoms (Forbes et al., 2008). Trait anger has, further, been found to predict the development of PTSD. Meffert et al. (2008) found that trait anger measured within the first 12-months of active duty police work (i.e., prior to a traumatic exposure) predicted PTSD development. The combined findings of these studies indicate that the relationship between PTSD and anger may be bidirectional. Since anger has strong implications for the development and maintenance of PTSD, understanding this relationship in samples at high risk for PTSD, such as PSP, is imperative.

Depression is a potential confounding factor that is important to address when examining PTSD-related anger. Raab, Mackintosh, Gros, and Morland (2013) found that a diagnosis of major depressive disorder had a significant effect on the relationship between PTSD and anger, indicating that comorbid depression may be responsible for increase in PTSD-related anger, rather than PTSD and anger having a direct relationship. Trauma and PTSD symptoms may result in depression, which further results in activating neural networks that have been linked to

state anger (Raab et al., 2013). Addressing the origins of anger in order to understand the precise nature of the relationship between anger, PTSD, and marital satisfaction is, therefore, important.

PTSD and Marital Satisfaction

Social supports such as partnerships, intimate relationships, marriages, and common-law relationships are an important protective factor against the development of PTSD (Monson et al., 2009). A Canada-wide study on PSP found that single, separated, widowed, or divorced individuals were more likely to report symptoms of mental disorders, including PTSD, compared to those that were married or in common-law relationships (Carleton et al., 2017). PTSD is also associated with higher rates of divorce. A study on PTSD and marital satisfaction found that males with PTSD were less likely to be married, and those who were married were more likely to be divorced (Jordan et al., 1992). More marital and relationship problems have been reported by individuals with PTSD compared to individuals who do not have PTSD. Aggressive behaviour and anger have been found to be correlated with PTSD symptom severity (Monson et al., 2009). Anger has, further, been found to reduce marital satisfaction (Baron et al., 2007). Further research shows that PTSD symptoms are associated with higher rates of aggression and perpetration of violence within intimate partner relationships (Orcutt, King, & King, 2003).

Individuals who report higher levels of marital satisfaction within their intimate partnership report lower levels of anger (Vest et al., 2017). Marital satisfaction is also associated with less severe PTSD symptoms. Higher marital satisfaction has been associated with decreases in specific PTSD clusters and symptoms, including reliving trauma, emotional numbness, and irritability (LeBlanc et al., 2016). Spouses and intimate partners may be essential sources of support for individuals with PTSD, which indicates that the quality of intimate partner

relationships (i.e., marital satisfaction) is a key resilience factor for reducing the risk of mental health problems, including PTSD and anger (Vest et al., 2017).

Specific aims/hypotheses

The purpose of the current study was to clarify the relationship between anger, PTSD, and marital satisfaction in PSP; specifically, to examine the impact of anger and PTSD on marital satisfaction. Based on previous research (Monson et al., 2009; Vest et al., 2017), we hypothesized that clinically significant symptoms of PTSD would predict lower marital satisfaction and that higher levels of anger would be associated with lower marital satisfaction.

Methods

Participants

Data were derived from a large-scale survey conducted by Carleton et al. (2017) that assessed mental disorders among PSP in Canada through online self-report measures. Participants were recruited through advertisements and social media and through emails sent from the Public Safety Steering Committee of the Canadian Institute for Public Safety Research and Treatment, numerous municipal PSP agencies, and advocacy organizations. The total number of participants included in the study was $n = 5813$; indicating an estimated response rate of 5%. Approximately 23.2% of the participants ($n = 1304$) screened positive for PTSD. Demographic characteristics for the study are presented in Table 1.

Measures

The PTSD Checklist for DSM-5 (PCL-5; Blevins et al., 2015). The PCL-5 is a 20-item self-report measure that assesses symptoms of PTSD in line with the criteria stated in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; APA, 2013). Items are assessed on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). The PCL-5 has

demonstrated excellent psychometric properties (Blevins et al., 2015), including good test-retest reliability and validity (scores ranging from .66 to .69) and excellent internal consistency with Cronbach's α ranging from .83 to .98 (Bovin, et al., 2016). The PCL-5 has also demonstrated a valid cutoff score for assessing PTSD diagnosis and symptom severity (Bovin et al., 2016). Research has indicated that total PCL-5 scores ranging from 31 to 33 predict diagnosis of PTSD from the Clinician Administered PTSD Scale for DSM-5 (CAPS-5; Weathers et al., 2017) and correspond with scores on other versions of the PCL (Bovin et al., 2016). In order for participants to be identified with a positive screen for PTSD, Carleton et al., (2017) required participants meet a minimum total-score cutoff of 32 or greater. Reliability was analyzed for the PCL-5, demonstrating good internal consistency, α = .962.

The Dimensions of Anger Reactions-5 Scale (DAR-5; Hawthorne, Mouthaan, Forbes, & Novaco, 2006). The DAR-5 is a 5-item self-report measure that assesses levels of anger (Forbes, Alkemade, Mitchell et al., 2014). Items such as "*When I get angry at someone, I want to hit them*" are measured on a Likert scale ranging from 1 (*none of the time*) to 5 (*all of the time*). With a cut-off point of 12, the DAR-5 is able to differentiate between high and low scorers on the State-Trait Anger Expression Inventory-2 (STAXI-2; Forbes, Alkemade, Mitchell et al., 2014), which is another well-used measure of anger. The DAR-5 has good psychometric properties, including high internal consistency and internal reliability, with Cronbach's α ranging from .86 to .90 (Forbes, Alkemade, Hopcraft et al., 2014; Forbes, Alkemade, Mitchell et al., 2014). The DAR-5 demonstrates discriminant validity with measures it should not be related to, such as the Alcohol Use Disorder Identification Test (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) and the Hospital Anxiety and Depression Scale (Zigmund & Snaith, 1983). The DAR-5 also demonstrates convergent and concurrent validity with similar well-used measures of

anger such as the STAXI-2 (Forbes, Alkemade, Hopcraft et al., 2014). Reliability analysis of the DAR-5 yielded good internal consistency, $\alpha = .884$.

The Dyadic Adjustment Scale-4 (DAS-4; Sabourin, Valois, & Lussier, 2005). The DAS-4 is a 4-item self-report measure that assesses marital satisfaction. The measure asks questions such as "*In general, how often do you think that things between you and your partner are going well?"* (Sabourin et al., 2005), with responses on 6- and 7-point Likert scales ranging from 0 (*all of the time*) to 5 (*never*) and from 0 (*extremely unhappy)* to 6 (*perfect)*. This measure has been found to have good psychometric properties, including reliability, predictive validity, and construct validity (Sabourin et al., 2005). Internal consistency of the DAS-4 is also high, ranging from .84 to .91 (Sabourin et al., 2005). Reliability analysis of the DAS-4 demonstrated an internal consistency of $\alpha = .696$.

The Patient Health Questionnaire-9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001). The PHQ-9 is a 9-item self-report measure that assesses symptoms of depression. Items such as *"Little interest or pleasure in doing things"* are rated on a 4-point Likert scale from 0 (*not at all*) to 3 (*nearly every day*). The PHQ-9 has demonstrated good psychometric properties, including test-retest reliability (Kroenke et al., 2001; Lowe, Unutzer, Callahan, Perkins, & Kroenke, 2004), and a good internal consistency, with Cronbach's α found to be .89 (Kroenke et al., 2001). The measure also demonstrates specificity (88%), sensitivity (88%), and construct validity (Kroenke et al., 2001). Reliability was analyzed for the PHQ-9, demonstrating good internal consistency, $\alpha = .909$.

Data analysis

The data were analyzed using hierarchical multiple regression in the Statistical Package for Social Sciences (SPSS). Before conducting the hierarchical regression, the appropriate

assumptions of this statistical analysis were tested. The assumption of multicollinearity was met, as collinearity statistics such as VIF and tolerance were within limits. No independent predictors were observed to be highly correlated with one another. The correlations amongst all variables included in the study are presented in Table 2. Missing data was excluded from analysis. An examination of the Mahalanobis and Cook's distance scores indicated no outliers, and standardized residual partial and scatter plots reveal that assumptions of normality were met.

A three-stage hierarchical multiple regression was conducted with marital satisfaction as the dependent variable. Depression was entered in the first stage to control for the effects of anger in PTSD. PTSD was entered in the second stage as a predictor of marital satisfaction. Finally, anger was entered in the third stage predicting marital satisfaction. Statistical tests were conducted using a two-tailed alpha level of .05.

Results

In the first stage of the hierarchical regression, depression was entered as a predictor. This model was statistically significant, F (1, 3976) = 190.11, $p < .001$, and explained 5% of the variance in marital satisfaction. Introducing PTSD to the model in the second stage did not explain any more of the variance in marital satisfaction. The model was statistically significant, F (2, 5975) = 95.41, $p < .001$, but the change in R^2 was not (ΔF (1, 3975) = .73, $p > .05$, ΔR^2 = .00). The introduction of anger in the third stage explained additional 6% of the variation of marital satisfaction after controlling for the effects of depression, and the change in R^2 was also statistically significant, F (3, 3974) = 80.68, $p < .001$, $\Delta R^2 = .01$. Depression ($\beta = -.15$, $p < .001$) and anger ($\beta = -.14$, $p < .001$) were, thus, unique statistically significant predictors of marital satisfaction, but PTSD was not ($\beta = .02$, $p < .05$). Results from the hierarchical multiple regression are expressed in Table 3.

Discussion

Our hypothesis that clinically significant symptoms of PTSD would predict lower marital satisfaction was not supported. However, the hypothesis that higher anger would be associated with lower marital satisfaction was supported. The presence of PTSD symptoms alone did not account for significant variance in marital satisfaction. The negative effects on marital satisfaction may be better explained by anger than PTSD. Specifically, the PTSD symptom clusters that correspond most to low mood and anger (i.e., negative changes in affect and mood) may be more important for marital satisfaction than symptoms such as re-experiencing (APA, 2013).

Our findings that anger was a unique predictor of marital satisfaction was consistent with previous research indicating the negative effects of anger on marital satisfaction (Meffert et al., 2008). The identification of anger as a unique predictor of marital satisfaction, beyond depression and PTSD, has implications for screening and treatment of mental health difficulties among PSP. Specifically, screening for anger may be important for promoting resilience among PSP, as anger may interfere with marital relationships, which are an important protective factor against PTSD (Monson et al., 2009).

Low effect sizes were identified in the regression model for anger and depression. While significant, anger explained a relatively small amount of variance in marital satisfaction, as did depression. Perhaps other factors contribute to the explanation of variance in marital satisfaction in addition to anger and depression.

Further clarification of the exact role of anger in the relationship between PTSD, and marital satisfaction may serve to tailor treatment and preventative measures to better address these issues in PSP. Preventative measures involving marital satisfaction might include the

implementation of various relationship counselling and intervention strategies. These strategies can be recommended by employers in an effort to reduce PTSD development in PSP. Preventative measures may also be improved by providing PSP with various strategies to deal with anger before PTSD development occurs. Additionally, the relationship between anger, PTSD and marital satisfaction may inform treatment applications by addressing and improving marital satisfaction and anger in PSP to reduce PTSD symptoms.

It is important to note the limitations of the current study and how the study may inform future directions for research. Since the study was not longitudinal in nature, it was not possible to determine the long-term changes in marital satisfaction as a result of PTSD and anger. Future directions of research could involve examining this relationship directly in a sample of PSP, using a longitudinal research design. Measuring anger, marital satisfaction, and PTSD at multiple time points may enable changes in marital satisfaction due to anger and PTSD symptoms to more accurately be assessed over time.

Another future direction could involve examining anger-related constructs and their impacts on marital satisfaction in PSP. As irritability is relevant to anger, and a feature of PTSD (APA, 2013), it may be beneficial to explore constructs that are related to anger, such as irritability and hostility. Irritability may increase partner conflict and reduce marital satisfaction (Orcutt et al., 2003), and hostility has been demonstrated to reduce marital satisfaction and overall relationship functioning (Baron et al., 2007). An examination of anger and related constructs in future research may explain the variance in marital satisfaction to a larger extent.

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Table 1

Frequencies and Percentages for Demographic Characteristics of Participants

Characteristics	*n*	Valid %
Gender		
Male	5102	66.1
Female	2621	33.9
Age		
60+	314	4.1
50-59	1988	25.7
40-49	2840	36.8
30-39	2122	27.5
18-29	462	6.0
Ethnicity		
White	6979	90.2
Other	758	9.8
Marital Status		
Single	842	11.0
Separated/Divorced/Widowed	793	10.3
Married or common-law	5782	75.4
Re-married	251	3.3
Education		
Highschool graduate or less	709	9.4
Some post-secondary (less than 4-year college/ university program)	4074	53.9
University degree/ 4-year college/university program	2770	36.7
PSP Category		
All Call Center and Dispatcher or Operations	446	4.8
All Corrections	1308	14.1
All Firefighters	1217	13.1
All Paramedics	1224	13.3
All Municipal and Provincial Police	2080	22.5
RCMP	2156	23.5
Province of Work		
Western Canada (i.e., B.C., AB., Sask., Man.)	4214	51.1
Eastern Canada (i.e., Ont. Que.)	2993	36.3
Atlantic Canada (i.e., Y.T., N.W.T., Nvt.)	1045	12.7

Table 2

Descriptive statistics, reliability, and correlations for all variables (N = 5813)

Variables	Depression	PTSD	Anger	Marital Satisfaction
Depression	1			
PTSD	.73***	1		
Anger	.59***	.57***	1	
Marital Satisfaction	-.21***	-.17***	-.21***	1
Means	6.53	21.26	8.83	16.54
Standard Deviations	5.85	18.79	3.91	4.31
Cronbach's Alpha	.909	.962	.884	.696

Note. Statistical Significance: *$p < .05$; **$p <. 01$; ***$p < .001$

Table 3

Hierarchical Regression Model

Variable	*R*	R^2	ΔR^2	*B*	*SE*	β	*t*
Step 1	.21	.05***					
Depression				-.16	.01	-.21	-13.79
Step 2	.21	.05	.05				
Depression				-.15	.02	-.19	-8.75
PTSD				-.00	.01	-.02	-.86
Step 3	.24	.06***	.06***				
Depression				-.11	.02	-.15	-6.18
PTSD				.01	.01	.02	.94
Anger				-.15	.02	-.14	-6.99

Note. Statistical significance: *$p < .05$; **$p < .01$; ***$p < .001$

Appendix A

Dimensions of Anger Reactions-5 Scale

Thinking over the past 4 weeks, circle the number under the option that best describes the amount of time you felt that way.

	None or almost none of the time	A little of the time	Some of the time	Most of the time	All or almost all of the time
1. I found myself getting angry at people or situations	1	2	3	4	5
2. When I got angry, I got really mad	1	2	3	4	5
3. When I got angry, I stayed angry	1	2	3	4	5
4. When I got angry at someone, I wanted to hit them	1	2	3	4	5
5. My anger prevented me from getting along with people as well as I would have liked to	1	2	3	4	5

Appendix B

PTSD Checklist for DSM-5

Circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having some negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4

15. Irritable behaviour, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking to many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Appendix C

Patient Health Questionnaire-9

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
If you checked off any of the items above, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?				
Not at all Difficult	Somewhat difficult	Very difficult	Extremely difficult	

Appendix D

Dyadic Adjustment Scale- 4

	Never	Rarely	Occasionally	More often than not	Most of the time	All of the time
1. How often do you discuss or have considered divorce, separation, or terminating your relationship?	5	4	3	2	1	0
2. In general, how often do you think that things between you and your partner are doing well?	5	4	3	2	1	0
3. Do you confide in your mate?	5	4	3	2	1	0

The following options represent different degrees of happiness in your relationship. The middle point, "happy" represents the degree of happiness of most relationships. Please select the option which best describes the degree of happiness, all things considered, of your relationship.

Extremely unhappy	Fairly Unhappy	A little unhappy	Happy	Very happy	Extremely happy	Perfect
0	1	2	3	4	5	6