# To Avoid or Not to Avoid? The Impact of Experiential Avoidance on the Relation between Interpersonal Trauma and Feelings of Depression

Jacobs, Seff

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The Impact of Experiential Avoidance on the Relation between Interpersonal Trauma and Feelings of Depression

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Leiden University
Master Clinical Psychology - Faculty of Social Science

**Name:** Seff Dean Jacobs
**Student id-number:** s2795256
**Supervisor:** Dr. M.S. Tollenaar
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## Preface

During the period of October 2020 and April 2021 the original study of the current paper was planned to be performed. This study aimed to investigate the impact of peer support groups on feelings of depression and the role of experiential avoidance on this relationship, in victims of domestic violence. To explore this relationship a pilot intervention study with a pretest-posttest design was meant to be performed. Due to restrictions taken by the government to minimize the impact of COVID-19 during this time, this study could not take place as how it was originally planned. For this reason, another study was designed and performed for the purpose of this thesis. However, a large part of this thesis was already written before these restrictions took place and therefore the introduction of the current paper contains information that slightly deviates from the final research question.


## Abstract

The experiences of interpersonal trauma can have long-lasting effects on multiple life domains including mental health. Literature suggests that the strength of this relation may be impacted by the amount of experiential avoidance individuals use. This study aims to examine the relation between interpersonal trauma and depressive feelings and the impact of experiential avoidance on this relation. This was investigated by means of online self-report questionnaires performed by 27 females with an average age of 46.26 (*SD* = 11.85). To measure whether participants experienced interpersonal trauma the Life Events Checklist for DSM-5 was administered. Depression scores were assessed by means of the Patient Health Questionnaire-9. Experiential avoidance was measured with the Acceptance and Action Questionnaire- II. Linear and multiple regression analyses were performed, and indicated that females who experienced interpersonal trauma score significantly higher on depression than females who did not experience interpersonal trauma ($p$ = .008, $R^2$ = .25). Findings of the multiple regression analysis indicate no significant interaction of interpersonal trauma and experiential avoidance ($p$ = .614). However, experiential avoidance by itself was a significant predictor of depression ($p$ = <0.01) and reduced the explanatory variance of interpersonal trauma. This possibly indicates a mediating effect of experiential avoidance on the relationship between interpersonal trauma and depression. Recommendations for future research is to investigate this possible mediating role of experiential avoidance on the relation between interpersonal trauma and depression. The current findings suggest that treatments

targeting greater experiential acceptance, possibly through peer support groups, might help victims of interpersonal trauma.

## 1.1 Introduction

*1.1.1 Domestic violence*

Safety and security are some of the basic rights people should experience in their homes. Unfortunately, this is not the case for all of us. Domestic violence is a serious problem with severe consequences and for some people day-to-day reality. Domestic violence can be defined as any physical, sexual, or mental violence that is perpetrated by someone in the family or domestic circle of the victim (van Dijk, Flight, Oppenhuis, & Duesmann, 1998) and is prevalent across most cultures and lifespan (Kleinschmidt, 1997). Children and women are the ones that are at most risk for experiencing violence by someone they know in the domestic circle or to be witnesses of violence perpetrated within their families (Astbury, et al., 2000). As estimated by various studies, between 10% and 35% of women will experience domestic violence at some point in their lives (Marianne, Nyberg, & Riecher-Rössler, 2010), which causes multiple negative long-term consequences including a higher risk of depressive feelings (Campbell, 2002). This is stressing the urgency to perform more research on domestic violence and the relation it has with depressive feelings and other negative outcomes. Furthermore, it is important to perform research on the effects of different kinds of interventions that might counteract the negative consequences associated with domestic violence. This study will therefore examine the role of peer support groups on feelings of depression after domestic violence, and the possible role of experiential acceptance.

Reports about the prevalence of domestic violence present widely ranging estimates, possibly due to different sample sizes, methods and assessment techniques used in the different studies. The prevalence rate of domestic violence in the Netherlands was measured by a cross-sectional research of van Eijkern, Downes & Veenstra (2018). This cross-sectional research, with the use of self-reports, has taken place in 2017 among a population of Dutch speaking participants of 18 years and older (van Eijkern, Downes, & Veenstra, 2018). They found that of the 6.835 individuals that responded to the questionaries, 5,5 % experienced victimization of domestic violence in the past 5 years. Domestic violence can be perpetrated by family members such as parents, children or siblings, but also friends of the family and most importantly partners or ex-partners (van Dijk, Flight, Oppenhuis, & Duesmann, 1998). According to the study of van Eijkern, Downes & Veenstra (2018), more than fifty percent of

the violence took place between partners and ex-partners. This means that partner violence is the most common type of domestic violence in the Netherlands (van Eijkern, Downes, & Veenstra, 2018). Looking at their findings, the researchers of their study concluded that victimization of domestic violence is gender specific (van Eijkern, Downes, & Veenstra, 2018). For example, they found that a higher percentage of females (6.2%) than males (4,7%) are victims of domestic violence. Next to that, the authors found that women also have more diverse experiences with domestic violence then men. Women are more often victims of structural violence, experience more often (temporal) injuries after violence, are more reluctant and more afraid to talk about the experienced violence, and they are more afraid that the violence would happen again (van Eijkern, Downes, & Veenstra, 2018). Although women are not the only ones to experience domestic violence, and men are also at risk to face violence in the family circle, research has shown that when taking the context into account in which the violence is taking place, the consequences are often more severe for women then for men (van Eijkern, Downes, & Veenstra, 2018).

Children can also be the victims of domestic violence. They can be the targets of domestic violence directly or indirectly (Astbury, et al., 2000). It is estimated that children that are exposed to violence between parents in the domestic circle are up to 15 times more at risk to be neglected or abused than children from non-violent homes (MCkay, 1994; Arbittel, & McFerran, 1988; Stacy & Sharpe, 1983). Children that are indirect targets of domestic violence experience for example, violence by trying to protect the mother or another family member, or by trying to stop the fight between parents (Astbury, et al., 2000). There are multiple consequences of victimization of domestic violence. These consequences can be behavioral, psychological and physical, and are present across all age groups and cultural backgrounds (Astbury, et al., 2000). For children some of these consequences include aggression, self-blame, guilt, isolation, self-harming behaviors, depression, sleep disturbances, excessive anxiety symptoms, psychosomatic symptoms, overeating, poor school performance, running away, stealing, bedwetting, and oppositional behavior (Astbury, et al., 2000). Being a victim of violence as a child perpetrated by a person they trust also impairs the ability to trust others, and increases the child's risk of victimization later in life (Resnick, Acierno, & Kilpatrick, 1997).

On the long and short-term, domestic violence can affect a number of wellbeing areas including physical health, relationships and emotional adjustment (Astbury, et al., 2000; Liu et al., 2018). Post-traumatic stress disorder and depression are the most prevalent psychological consequences of intimate partner violence (Campbell, Kub, Belknap, &

Templin, 1997). In their study, Campbell, Kub, Belknap & Templin (1997), investigated the Beck Depression Inventory scores of 164 women who experience violence in their intimate relationships with men. Of these women 28% were moderately to severely depressed and 11% were severely depressed. Significant predictors of these depression scores included childhood abuse and physical abuse by a partner (Campbell, Kub, Belknap, & Templin, 1997). For these reasons, the authors concluded that physical abuse is an important part of the onset and maintenance of depression in women that experienced violence (Campbell, Kub, Belknap, & Templin, 1997).

To measure the consequences of domestic violence on the short term, a recent study has investigated the effects of domestic violence by means of social media (Liu et al., 2018). In their study, Liu et all., (2018) studied a sample of 232 victims of domestic violence and 232 nonvictims. The authors of the study measured the mental status of the participants during the month before the first incident of domestic violence and during the month after the incident. They made use of their Online Ecological Recognition system which identifies the mental state of the participants. The findings of their study included that domestic violence has a significant impact on the mental health on the short term in victims of domestic violence. Victims showed increased levels of depression, lower life satisfaction, and higher risk of suicide after the experience of domestic violence. Compared to the victims, nonvictims did not show any significant changes in these domains (Liu et al., 2018).

In summary, between 10% to 35% of women might experience domestic violence at some point in their lives. The experience of domestic violence is not without consequences. Consequences might include behavioral, psychological, and physical domains, of which post-traumatic stress disorder and depression are the most prevalent consequences of domestic violence.

### *1.1.2 Experiential avoidance and acceptance*

As pointed out, depression can be a consequence of domestic violence. There are some possible reasons for this relationship. One of the reasons might be that victims of abuse and domestic violence feel more unlike other people and tend to experience more feelings of isolation, loneliness and guilt (Coates & Winston, 1983). These are unpleasant feelings that people might try to avoid. The avoidance of unwanted internal events like emotions and thoughts is referred to as experiential avoidance. This term can also be explained as the general tendency of a person to avoid all the aspects of internal experiences that they subjectively evaluate as aversive (Tull, Gratz, Salters, & Roemer, 2004). In individuals that

have experienced trauma, like victimization of domestic violence, such avoidance can include avoidance of internal experiences that are associated with the traumatic events. The tendency to avoid negative thoughts or unwanted emotions, often causes more intense negative emotions. This makes it more likely that unwanted emotional responses will come again and stronger in the future (Gross & Levenson, 1997; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Next to that, the habitual use of experiential avoidance can cause avoidance patterns of the feelings or thoughts and this can lead to problems themselves, for example, avoiding talking about the traumatic event or avoiding certain places related to the traumatic experiences.

The study of Tull, Gratz, Salters, & Roemer (2004), examined the relationship between experiential avoidance and symptoms of depression in people exposed to multiple possible traumatic events. The researchers found that experiential avoidance is associated with symptoms of depression (Tull, Gratz, Salters, & Roemer, 2004). It is therefore possible that the relationship between depressive feelings and domestic violence is impacted by the use of experiential avoidance. Therefore, it is important to explore this relationship further in specific populations such as victims of domestic violence and to investigate whether experiential acceptance can lead to less symptoms of depression after domestic violence. The current study might help exploring this relationship, which in turn could help filling the research gap and eventually improve clinical practice.

An important form of experiential avoidance that has to be taken into account is the avoidance of talking about experienced trauma. This form of experiential avoidance is a maladaptive coping strategy people who experienced domestic violence might use. This is often caused by shame and isolation that individuals experience after domestic violence which prevents disclosure (Astbury, et al., 2000). One fifth of the victims of domestic violence, as shown by the study of Eijkern, Downes & Veenstra (2018), do not talk about their experiences to anyone. Several reasons are indicated for why people do not share their experience of violence. One of them is that victims do not feel the desire or need to talk, or because they believe that the violence was not severe enough (van Eijkern, Downes, & Veenstra, 2018). Men that experienced domestic violence state more often that they do not talk about the incident because they do no not know who to talk to, or because they felt like they were complicit. Female victims state more often that they feel shame or that they are afraid to talk about their experiences. Victims that do talk about the violence they experienced share this the most with people in their informal network, like friends, a partner or their

mother. However, it does depend on the perpetrator of the violence of who the victim talks to (van Eijkern, Downes, & Veenstra, 2018).

There is empirical evidence that talking about experienced trauma can be beneficial for the individual's health and that not talking about it can negatively affect physical health (Finkenauer & Rimé, 1998). For this reason, it can be very important for individuals to talk about their experiences. In addition, research shows that novel and upsetting situations cause a tendency for self-evaluation. Humans feel a need to compare their emotional reactions with other people and therefore seek out people with similar experiences to, at least for some parts, compare whether their emotional responses are normal and appropriate (Coates & Winston, 1983). Peer support groups could be helpful for victims of domestic violence to meet others with similar experiences and to talk about communal issues, which may lead to less experiential avoidance and more experiential acceptance.

### *1.1.3 Peer support groups*

Peer support groups bring people together with similar stressors or circumstances, thereby giving nonclinical and nonprofessional support (Pfeiffer et al., 2011). There are multiple benefits associated with the participation in support groups. One of these benefits is that these interventions can take place across context. For example, the meetings can be in person, over the phone or via internet. Next to that, peer support groups often rely on voluntary efforts and nonprofessionals instead of for example, psychologists. This use of volunteers and nonprofessionals together with the contextual flexibility can keep costs low and can make it a widely available option (Dennis, 2003).

In several areas of psychology, the use of peer support group interventions is found to be associated with positive outcomes. One area like this is in individuals with substance use disorder (Tracy & Wallace, 2016). The participants in the study by Tracy & Wallace (2016), showed positive outcomes in substance use, treatment engagement, human immunodeficiency virus/hepatis C virus risk behaviors, and in secondary substance-related behaviors such as self-efficacy and craving after the participation in peer support groups (Tracy & Wallace, 2016). Also, the meta-analysis by Pfeiffer et al., (2011) shows that peer support interventions help in reducing symptoms of depression in people with depression and is even superior to usual care in depressive symptoms, although no difference was found between their cognitive behavioral therapy group and their peer interventions group (Pfeiffer et al., 2011).

To explore the working mechanisms of peer support, Dennis (2003) made use of a concept analysis methodology, which was originally proposed by Wilson (1969) and later described by Walker & Avant (1995). According to this analysis, peer support can have nourishing effects through direct, buffering and mediating mechanisms (Dennis, 2003). Although this analysis by Dennis (2003) was not isolated to peer support groups, the knowledge and findings can be applied to research into peer support groups. The first model is the direct effect model, this model proposes a direct influence of peer support on health outcomes. These effects come from multiple factors such as decreased isolation, social integration, and the access to resources of information by peers. This model proposes that positive psychological states are promoted, together with individual motivation by peer support (Dennis, 2003; Cohen, Gottlieb, & Underwood, 2000). The second mentioned model is the buffering effect model which proposes that peer support can protect individuals from potentially damaging influences of negative events or can determine individual responses to possible stressful events. According to this model peer support can have an influence on the coping strategies one uses by discussing and broadening these. Next to that, this model proposes that peer support can correct the tendency of individuals to blame oneself for the stressor or negative event to have happened, thus preventing positive coping strategies to be blocked by self-blame (Cohen & Syme, 1985; Cohen, Gottlieb, & Underwood, 2000). The third mechanism for possible salutary effect is a mediating effect of providing positive role modeling and social comparison (Bandura, 1986; Dennis, 2003). According to these findings peer support group could have positive effects for victims of domestic abuse and violence. It could be the case that through these various models and mechanisms people feel safe to open up about their experienced trauma.

Based on the findings described above, peer support groups could by means of the direct effect model provide more disclosure of experiences of violence and abuse. Also, according to this model, experiences of trauma could be shared and compared to other members of the groups. Next to that, in peer support groups people could possibly talk about the coping strategies they personally use and compare this to others. These positive effects of peer support on disclosure could possibly lead to more experiential acceptance. More use of experiential acceptance and less use of experiential avoidance could in turn lead to a weakening of the relation between traumatic experiences and negative mental health consequences.

### *1.1.4 Original research hypotheses*

Taken the high prevalence rate of domestic violence and the severe consequences of victimization together with the evidence of positive effects of peer support group in other psychological domains, it is surprising that little is known about the effects of peer support groups on feelings of depression in victims of domestic violence. Considering the lack of research about the effects of peer support groups in victims of domestic violence and abuse, it is important that more research is conducted to extent the literature and fill the research gap.

The current paper will therefore investigate the impact of peer support on depressive symptoms in victims of domestic violence participating in a peer support group program. Furthermore, the possible moderating impact of experiential avoidance on the relationship between domestic violence and depressive feelings in the participants are examined. This research will be conducted in a group of women who participate in a peer support group program for people that experienced domestic violence. The research is conducted by means of self-report questionnaires conducted before and after the participation in a 10-week peer support group program in the Netherlands. The study of the current paper will focus on the question whether there is a positive influence on experiential acceptance in victims of domestic violence after a 10-week peer support group program, and if this increase in experiential acceptance in turn has an influence on reducing depressive feelings.

Based on the literature review, the first hypothesis states that peer support groups will lead to less depressive feelings in a post-up measurement after a 10-week peer support group program compared to the pre-measurement before the program, in victims of domestic violence. The second hypothesis is that participation in the peer support group program will lead to more experiential acceptance at the post-up measurement compared to the pre-measurement. The third hypothesis states that in participants that use more experiential acceptance the depression scores will be lower than in individuals who make less use of experiential acceptance.

## 2.1 Change of plans due to COVID-19

At the time of this study (October 2020 – April 2021) new public health restrictions were introduced by the government to minimize the impact of COVID-19. Unfortunately, this demanded of the peer support groups to be postponed until other regulations would allow it. For this reason, we were not able to conduct the planned post-test after the 10-week peer support group program and could only include 5 pre-test measurements. This is because the participants were not able, at the time of this study, to fulfill the planned peer support group

program. This situation demanded of us to be creative and to find new ways to conduct a similar type of research that would not be affected by the COVID-19 regulations. Unfortunately, because of this situation, it was no longer possible to explore the effects of peer support groups on feelings of depression in victims of domestic violence. However, it was still possible to explore the relationship between experienced interpersonal trauma (as a substitute of domestic violence), depression, and experiential avoidance in another population with a different, online, research design.

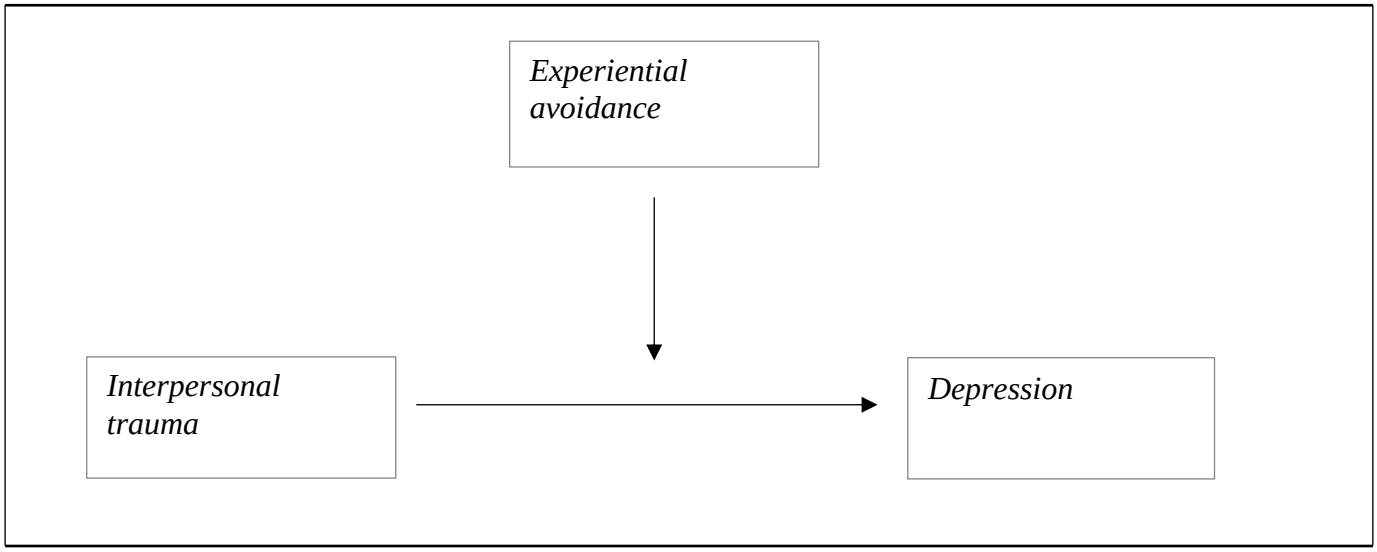
The new design was developed by me and a fellow student. Participants of this new study included 30 female respondents that filled out multiple questionnaires at one moment by means of an online research platform. Since this study used similar questionnaires as the originally planned study and added a questionnaire about experienced interpersonal trauma, it was possible to investigate whether experienced interpersonal trauma has an influence on feelings of depression. Next to that, the study could address the question whether experiential avoidance has an impact on the relation between interpersonal trauma and depression. Below the new hypotheses of the current study are described.

### *2.1.1 Hypotheses of the current study*

The first hypotheses states that depression scores will be higher in females that experienced interpersonal trauma, compared to females that did not experience interpersonal trauma. The second hypotheses states that individuals who experienced interpersonal trauma and make more use of experiential avoidance will have higher depression scores than individuals that experienced interpersonal trauma and show less use of experiential avoidance. This hypotheses, as illustrated by figure 1.1, states that there will be a moderating impact of experiential avoidance on the relationship between interpersonal trauma and feelings of depression.

**Figure 1**

*An illustration of the possible moderating effect of experiential avoidance on the relationship between interpersonal trauma and depression.*




## 2.2 Methods

### *2.2.1 Design*

A cross-sectional survey research design was performed in this study.

### *2.2.2 Participants*

The participants were recruited online, via the researchers' social network and by means of specific Facebook groups. All participants were female. Thirty individuals got access to the survey. Two were excluded because they did not agree upon participation and one failed to respond to a significant number of questions. Twenty-seven of the respondents were taken into the final analyses. The age of participants ranged from 25 to 62 years ($M$ = 46.26, $SD$ = 11.85) Out of the 27 respondents 26 (96.3%) are Dutch and 25 (92.6%) respondents consider Dutch as their native language. Mean number of years of education since the age of 6 is 14.59 ($SD$ = 3.04).

### *2.2.3 Procedure*

A flyer was posted on multiple Dutch open Facebook groups. These groups were designed for people who have experiences with trauma or trauma-related topics. Together with the flyer, a message was posted with the question for female participants for this study. When people were interested, they had to contact the researchers by means of email and were then given a

link and a password to get access to the questionnaire. Participants were then able to fill out the questionnaire at their own time in their own environment, there was no face-to-face contact with the researchers. Participants had to give consent for participation and were informed that they could stop at any time. For participation in this research participants could retrieve 3 euros. The study was approved by the Leiden University Psychology Ethics Committee (2020-08-31-M.S. Tollenaar-V2-2587).

*2.2.4 Materials and Instruments*

In this study, multiple questionnaires were administered and presented in Qualtrics. The questionnaires consisted of demographic information such as age, gender, ethnicity, native language and level of education. Next, mental state and problems in social life were addressed. After this, the current living situation, social network, and religion/spirituality were addressed. The way to answer these questionaries was either by open answers or by indicating their choice on a 4-point Likert scale in which 1 indicates 'not at all' and 4 indicates 'is a lot'. After this, the different domains of life events, posttraumatic stress disorder, anxiety, depression, resilience, loneliness, acceptance, hope, and empowerment were addressed by means of different validated questionnaires. For the purpose of this study, this study will focus on the depression scores of the participants on the Patient Health Questionnaire-9 (PHQ-9), the experiential avoidance scores of the participants on the Acceptance and Action Questionnaire-II (AAQ-II), and the scores on the Life Events Checklist for DSM-5 (LEC-5), which will indicate whether individuals experienced interpersonal trauma.

Interpersonal trauma was measured by means of the LEC-5. The LEC-5 is designed to screen for potentially traumatic events in an individual's lifetime, by means of standard self-report, extended self-report, or interview. In this study the standard self-report method was used. The LEC-5 assesses whether the respondent has been exposed to 16 events that are known for potentially resulting in distress or post-traumatic stress disorder. No formal protocol for scoring and interpretation of the LEC-5 exist, other than identifying whether the respondent experienced events that are listed (Gray, Litz, Hsu, & Lombardo, 2004). There are multiple ways of exposure listed to each type of traumatic event included on a 6-point nominal scale. Multiple answer options are possible. For example, item 6 consists of 'Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)' with response options; 'Happened to me; Witnessed it; Learned about it; Part of my job, Not sure; Doesn't apply'. For the purpose of this study, the final analyses consisted only of specific items and answer

options to identify interpersonal trauma in the respondents. To identify how many females experienced interpersonal trauma the scores of the participants were re-coded in either; zero = 'no trauma' or one = 'yes trauma'. Only items 6, 7, 8, and 9 with answer option 1 ('happened to me') of the LEC-5 were used to identify if people experienced violent or sexual trauma themselves. Item 6 consists of the question whether the respondent experienced physical assault, item 7 refers to whether one experienced assault with a weapon, item 8 questions whether one experienced sexual assault, and item 9 consists of the question whether the respondent experienced other unwanted or uncomfortable sexual experiences (Gray, Litz, Hsu, & Lombardo, 2004).

The depression symptoms of the participants were measured by means of the PHQ-9, with nine items asking the frequency of certain symptoms in the last two weeks. These items match the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria of major depression. Participants are asked to rate the items on a scale ranging from 'not at all', 'several days', 'more than half the days', to 'almost every day'. The questionnaire starts with; 'during the last two weeks, how often did you experience one or more of the following problems' and then the items followed. For example, the items contained questionings like; 'feeling gloomy, sad, or hopeless' and 'difficulties with concentration when for example reading the newspaper or watching television'. In order to make criteria-based diagnoses of depressive disorders, the PHQ-9 proved itself to be a reliable and valid measure of depression severity and can therefore be used as a research tool (Kroenke, Spitzer, & Williams, 2001). For scoring the PHQ-9 different methods can be used such as an algorithm based on DSM-IV criteria and a cut-off score based method on summed-items scores (Manea, Gilbody, & McMillan, 2015). For the purpose of this study is not necessary to diagnose the participants with depressive severity but we are simply interested in the depression scores based on the answers of the participants to the nine items of the PHQ-9. For this reason, it is more useful in this study to make use of the summed-item score then of the algorithm scoring method. The summed-item score requires to add up the score from each of the items to give a total score ranging from 0 to 27, with a score of ten or above possibly indicating a major depressive disorder.

To assess the constructs of experiential avoidance and experiential acceptance the AAQ-II was used. Participants were asked to fill out the answers of 7 items that fits the best ranging from 'never true', 'almost never true', 'rarely true', 'sometimes true', 'mostly true', 'almost always true', to 'always true'. The items consisted of questions like; 'I am afraid of my feelings', 'emotions are causing difficulties in my life', and 'I am worried that I am not

able to control my worries and feelings'. Item scores are summed up, as items are phrased as indicative of avoidance. Higher score indicates less flexibility and higher experiential avoidance while a lower total score indicates more flexibility and lower avoidance (thus more experiential acceptance). Scores of experiential avoidance around 24-28 are associated with the cutoffs on measures of symptoms like depression or anxiety. The AAQ-II demonstrates to be a unidimensional measurement tool that assesses the psychological inflexibility construct and can do this across very different samples in a comparable manner (Bond, et al., 2011). Compared to the AAQ-I (r=.97), the AAQ-2 measures the same concept but with better psychometric consistency. The AAQ-II shows an appropriate discriminant validity, and AAQ-II scores predicts a range of outcomes that are consisted with the underlying theory such as higher levels of psychological inflexibility are related to greater levels of stress, anxiety, overall psychological distress and depression (Bond, et al., 2011).

### *2.2.5 Statistical analyses*

First, descriptive statistics are given, and assumptions of linearity, homoscedasticity, independence, normality and multicollinearity are checked. There are no violations of any of the assumptions and no outliers are identified. A simple regression model is used to examine the role between interpersonal trauma and the depression scores of the participants. After centering the interpersonal trauma and experiential avoidance scores a multiple linear regression model including the two main effects of trauma and experiential avoidance, together with an interaction term are used to explore the moderating role of experiential avoidance on the relation between interpersonal trauma and depression. Data is collected and analyzed by means of IBM SPSS Statistics 26. A significant score is shown with an alpha level of 0.05.

## 2.3 Results

### *2.3.1 Descriptive statistics*

In total out of the 27 respondents 19 people (70.4%) responded to have experienced at least one type of interpersonal trauma. Seventeen individuals (63%) responded to have experienced violence. In total 4 individuals (14.8%) experienced violence perpetrated with a weapon. Sixteen individuals (59.3%) experienced sexual violence and 12 respondents (44.4%) experienced other unwanted sexual experiences. The mean score of depression on the PHQ among the 27 participants is 12.19, ranging from 1 to 25 (*SD* = 7.33). Of the respondents 15

individuals (55.56%) had a depression score above the cut-off score of 10 for possible major depressive disorder. The mean score of experiential avoidance on the AAQ in this study is 29.59, ranging from 9 to 49 (*SD* = 13.092).

Before the hypotheses were tested, associations of the predictor and outcome with the moderator were examined. To examine the association between the experiential avoidance scores of the participants and interpersonal trauma, a simple linear regression was calculated. A significant regression equation was found ($F$ (1,25) = 10.025, $p$ = .004), with an $R^2$ of .29. This indicates that in this population, experiences of interpersonal trauma are associated with more use of experiential avoidance ($b$ = .54, $p$ = <.001) and interpersonal trauma seems to explain 29% of the variance in experiential avoidance scores. In order to investigate the relationship between the depression scores of the participants and their experiential avoidance scores a simple linear regression was calculated. More avoidance was related to higher levels of depression ($b$ = .844, $p$ = <.001). A significant regression equation was found ($F$ (1, 25) = 61.769, $p$ = <.001, with an $R^2$ of .71. Experiential avoidance seems to explain a significant proportion (71%) of the variance in depression scores.

*2.3.2 The relationship between interpersonal trauma and depression*

A simple linear regression was calculated to predict the depression scores of participants based upon interpersonal trauma. A significant regression equation was found (F (1,25) = 8.395, $p$ = .008), with an $R^2$ of .25. This indicates evidence for the first hypothesis; people who experienced interpersonal trauma score significantly higher on the depression questionnaire ($b$ =.501, $p$ =.008). Interpersonal trauma seems to explain 25% of the variance in the depression scores.

*2.3.3 The impact of experiential avoidance on the relation between interpersonal trauma and depression*

A multiple regression analysis was calculated to predict the depression scores of the participants based on their experiences of interpersonal trauma, experiential avoidance and the interaction between trauma and experiential avoidance. A significant regression equation was found (F (3,23) = 19.576, $p$ = <0.01), with an $R^2$ of .72. Results are presented in table 1. In contrast to expectations, the interaction of interpersonal trauma and experiential avoidance on depression is not significant ($b$ = .069, $p$ = .614). Interpersonal trauma shows no longer a significant relation with ($b$ = .117, $p$ = .472). However, experiential avoidance remains a significant predictor of depression score ($b$ = 787, $p$ = *<0.01*). These results contradict the

third hypotheses, experiential avoidance is not a moderator of the relationship between traumatic experiences and depression score. However, experiential avoidance scores and depression scores are strongly associated, and experiential avoidance seems to reduce the explanatory variance of interpersonal trauma in depression scores.

**Table 1**

*Summary of Multiple Regression Analysis for Variables predicting Depression Scores (N=27)*

| Variable | **Unstandardized coefficients (B)** | **Standardized coefficients (beta)** | ***t*** | ***p*** | **95% CI Lower** | **Upper** |
|---|---|---|---|---|---|---|
| (constant) | 11.877 | | 11.972 | .000 | 9.825 | 13.930 |
| Avoidance | .441 | .787 | 5.791 | .000 | .283 | .599 |
| Trauma | 1.843 | .117 | .731 | .472 | -3.369 | 7.054 |
| Trauma x Avoidance | .096 | .069 | .511 | .614 | -.291 | .482 |

*Note:* Interpersonal Trauma and Experiential Avoidance were centered at their means in the analyses.

## 2.4 Discussion

*2.4.1 Summary of the study findings*

This study originally aimed to investigate the influence of peer support groups on depressive feelings through the moderating role of experiential avoidance in victims of domestic violence. Due to COVID-19 related restrictions, it was not possible to conduct the original study. To still explore the relationship between depression and experiential avoidance after experiences of violence, another study was conducted. The aim of this study was to explore

the relationship between interpersonal trauma and feelings of depression, and the possible moderating role of experiential avoidance on this relationship.

The first finding of this study indicates that experiences of interpersonal trauma are associated with depressive feelings, which is in line with the first hypothesis. This result indicates that females in this study that experienced interpersonal trauma compared to females that did not experience interpersonal trauma show higher depression scores. The second important finding of this study shows that when looking into the impact of experiential avoidance on the relation between interpersonal trauma and feelings of depression, there was no significant moderating role of experiential avoidance. This contradicts the second hypothesis of this study. When correcting for experiences of interpersonal trauma, experiential avoidance however, remained a significant predictor of feelings depression. These results indicate that the predictive value of interpersonal trauma for depression disappears when taking experiential avoidance into account in the regression analysis. This might indicate a possible mediating effect of experiential avoidance on the relationship between interpersonal trauma and depression, which was however not further explored in this study. Other findings of this study show that females that experienced interpersonal trauma compared to females that did not experience interpersonal trauma, show more use of experiential avoidance. Next to that, experiential avoidance and feelings of depression are associated in this study. Females that make more use of experiential avoidance seem to have higher amounts of feelings of depression than females that make less use of experiential avoidance.

In this study experiences of interpersonal trauma and depression seem to be associated, which is in line with previous research. For example, in the study of Tracy et al. (2014), they found that the mean depression severity among participants that experienced at least one traumatic event was 1.71 times higher than among individuals that did not experience any traumatic events (Tracy et al., 2014). They found that the highest increases in depression severity were in individuals that experienced sexual assault, being threatened with a weapon, and other direct experiences of shocking events. Next to that, the number of experienced traumatic events reported by participants was positively associated with depression severity in their study (Tracy et al., 2014).

Although not formally tested in this study, the results indicate a possible mediating role of experiential avoidance in the relation between interpersonal trauma and feelings of depression. This is supported by previous studies, in which experiential avoidance has been found a possible mediator of the relation between abuse and negative mental health outcomes

as well. For example, in the study of Reddy et al. (2006), they investigated in a cross-sectional study 987 college students. They found that the relation between childhood psychological abuse and adult psychological distress was significantly mediated by experiential avoidance (Reddy et al., 2006). The significant relation between childhood psychological abuse and current mental health symptoms they found before including experiential avoidance in their regression model, was no longer significant when including experiential avoidance. In their study, the results from the mediation analyses suggests that psychological abuse in the past is associated with increased risk for psychological distress in adulthood, via increased use of experiential avoidance (Reddy et al., 2006). The authors of the study state that their findings are in line with the assumption that experiential acceptance may be a protective mechanism against the negative health outcomes on the long-term associated with psychological abuse (Reddy et al., 2006). A similar mediating effect of experiential avoidance was found in the study of Ghazanfari et al. (2018). This researchers performed a descriptive-cross-sectional study with a final population of 439 female college students. In line with their hypotheses, experiential avoidance mediated the effect of general childhood trauma and depression severity in individuals suffering from major depressive disorder (MDD), and individuals with a history of MDD in the past 12 months. Next to that, they found that experiential avoidance was a mediator of the effect of childhood abuse and depression symptoms. They state that more use of experiential avoidance in victims of abuse, leads to more symptoms of depression and depressive symptoms they reported (Ghazanfari et al., 2018). Reddy et al. (2006), explains the relation between childhood abuse and experiential avoidance, by the fact that the child may not be able to avoid the traumatic or violent situation in a physical manner, they may try to avoid it by mentally escaping the situation by avoidance strategies (Reddy et al., 2006).

The other findings of this study are in line with previous research. For example, in the study of Tull, Gratz, Salters, & Roemer (2004), they found that when controlling for posttraumatic stress symptom severity, experiential avoidance was associated with symptoms of depression, anxiety and somatization in 160 women that experienced potentially traumatic events (Tull, Gratz, Salters, & Roemer, 2004). According to the literature, avoidance of emotions and thoughts among individuals who have experienced interpersonal trauma may function to manage internal experiences that are aversive of nature and are associated with the experienced trauma (Tull, Gratz, Salters, & Roemer, 2004). Although this use of experiential avoidance in the first instance reduces distress, chronic experiential avoidance may lead to increased distress and dysregulation, (Tull, Gratz, Salters, & Roemers (2004); Gross &

Levenson, 1997; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996) and the preservation of symptoms (Horowitz, 1986), which could possibly lead to feelings of depression on the long term. This explains our finding that participants who make more use of experiential avoidance seem to heave higher amounts of feelings of depression, than females that make less use of experiential avoidance. One possible explanation for the association between depression and experiential avoidance found in these and our studies is that the tendency to avoid internal experiences like thoughts and emotions may contribute to the presence of feelings of depression (Rueda & Valls, 2016). It could be the case that a tendency to escape from aversive situations, and the attempt to control them by using avoidance of internal experiences, may maintain and even increase those unwanted internal experiences and the severity of feelings of depression. The presence of these negative internal events would lead to more experiential avoidance, which in turn, turns into a vicious cycle that is unhelpful to the individual (Rueda & Valls, 2016). According to the study of Trew (2011), deficits in approaching behaviors and the motivation for avoidance are argued to play a role in the onset and maintenance of depression by limiting positive experiences and reinforcement for non-depressed behavior. According to the authors of the study, the use of avoidance may cause a bias for negative information processing, which increases the vulnerability to the onset and recurrence of symptoms of depression (Trew, 2011).

Future research might benefit from testing this speculative explanation by exploring and testing the processes and specific relationships of these variables to get a clearer view of the mechanisms at work. The answer to these questions are of clinical relevance so interventions could be developed to protect individuals from using experiential avoidance and stimulate the use of more healthy coping strategies like experiential acceptance. Future research might benefit from looking into this specific relation and by possibly taking the role of peer support groups into account, as peer support groups stimulate the use of coping strategies by discussing and broadening these (Dennis, 2003).

### *2.4.2 Strengths, limitations, and recommendations for future research*

The results of the present study should be evaluated in lights of its limitations. The cross-sectional and correlational nature of the data make it impossible to determine the actual direction and nature of the relationships tested. For example, it could be that depression is causing people to make more use of experiential avoidance, rather than the other way around. It would be worth replicating these results by the use of longitudinal studies to verify the direction of the relationships. Another limitation is the reliance on self-report measures of

depression, interpersonal trauma and experiential avoidance, because individuals might respond in social desired ways or may not have complete awareness of their internal experiences or might have difficulties with reporting these. The use of other indicators, like information obtained from third parties or behavioral measures, could have been a more objective assessment of the levels of depression and experiential avoidance. The characteristic of the LEC-5, which were used to measures experiences of interpersonal trauma, is a limitation as well. The LEC-5 is a checklist in which people can report whether they experienced trauma and the nature of the trauma, but more information cannot be detained from the LEC-5. Because of this, there was no data on the intensity, severity, duration and onset of trauma, while these factors may have a strong impact on experiential avoidance and depression. Next to limitations this study also contains some strengths, one of them includes that the variables were measured by means of questionnaires. Questionnaires can be viewed as a reliable method of inquiry. Next to that this cost-effective research can help us understand relations between the different variables of interpersonal trauma, depression, and experiential avoidance.

Recommendation for future research is to investigate trauma on a deeper level by the use of more questions to get insight in the duration, severity, onset and other specifics of the trauma the individual experienced. The relationships in this study were examined within a general population sample from a nonclinical setting. However, the participants were recruited from Facebook groups designed for individuals who experienced trauma, so the results might not be representative for the general population. The sample size of this study was relatively small and homogenous with only female respondents that were highly educated and Dutch. Future research could benefit from higher sample sizes that are more heterogeneous. Since previous literature and the indicative results of this study show a possible mediating effect of experiential avoidance on the relation between interpersonal trauma and feelings of depression, it is recommended for future research to look into ways how experiential avoidance can be tackled early on and how experiential acceptance can be promoted. This could be through the use of peer support groups. Future research could test the relationships between interpersonal trauma, feelings of depression and experiential avoidance in participants of peer support groups. For example, by means of a pre-test post-test study design, to see whether the use of experiential avoidance changes through the course of the peer support group program, and whether the use of experiential avoidance mediates the relation between interpersonal trauma and feelings of depression.

Despite the limitations of this study, the findings are potentially useful and an exciting addition to the growing body of literature examining the mechanisms and relationships between experiences of interpersonal trauma, experiential avoidance and feelings of depression.

### *2.4.3 Conclusions*

The results of this study show some insights in the associations and relationships between interpersonal trauma, experiential avoidance, and depression. This research shows that interpersonal trauma and feelings of depression are associated with each other in females. Next to that, it shows that females in this study who experienced interpersonal trauma show more use of experiential avoidance than females that did not experience interpersonal trauma. This study also showed that although no moderating role of experiential avoidance was found on the relation between interpersonal trauma and feelings of depression, there are indications of a possible mediating role of experiential avoidance. Future research might tackle the above-mentioned limitations, so more insights will be available in the relationship between interpersonal trauma and depression, and the role of experiential avoidance on this relation.

The exploration and research on this relation is of clinical and societal relevance. When the exact relations between interpersonal trauma, experiential avoidance and depression can be determined, it might be possible to modify clinical interventions in a more beneficial way. By doing this, depression after exposure to interpersonal trauma could be prevented or treated more efficiently by taking the effects of coping strategies such as experiential avoidance and experiential acceptance into account.

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