During a **traumatic event** an individual may suffer alterations in the experience of time, place, and person, which making the traumatic event feel unreal. This way of processing information during a traumatic experience, or subsequently, has been **conceptualized as traumatic dissociation** (Van Der Kolk, Van Der Hart, & Marmar, 1996). **Dissociative symptoms** may manifest as psychological or as bodily phenomena and include disrupted memory encoding, affect compartmentalization, and time distortion and fugue.

The impact of trauma on mental health can be traced to the origins of psychology. Over a century ago Pierre **Janet** (1907) described as the main problem of severely traumatized victims the **inability to emotionally process traumatic memories**. According to Janet’s clinical observations, in the wake of traumatic experiences, the self lacks the capacity to incorporate into its structure emotions and memories resulting from the trauma. Thus, the traumatic experience is not available to normal conscious representation, and therefore cannot be processed, persisting as a fixed idea that is split off from consciousness and distorts subsequent experiences. Unlike normal memories, traumatic memories are not associated with an internal sense of self, and consequently, the retrieval of those memories are not under voluntary control (Bower and Sivers, 1998). Nevertheless, the sensory fragments of the traumatic experiences can be revived in consciousness when associated to external cues similar to those of the original traumatic experience, which could explain the **relationship between peritraumatic dissociative experiences and intrusive thoughts or flashbacks**, key symptoms of Post Traumatic Stress Dissorder (PTSD; American Psychiatric Association, 2013)

During the past decades trauma research has confirmed that **dissociative experiences during a traumatic event may play a critical role in the development of trauma-related psychological disorders**, including PTSD (e.g., Van Der Kolk, Van Der Hart, & Marmar, 1996). In addition, pathological dissociation has been used as a basis for a subtype of PTSD because research has identifying a subgroup of individuals with both biological and psychological features of dissociation in addition to PTSD (Lanius, Brand, Vermetten, Frewen, & Spiegel, 2012).

In a study of over 25,000 adults from 16 countries Stein et al. (2013), found that **dissociative symptoms** were present in 14% of individuals with 12-month DSM-IV/Composite International Diagnostic Interview **PTSD**. **These symptoms were associated with high counts of re-experiencing symptoms, severe role impairment, specific phobia, and suicidality. Individuals who reported dissociative symptoms were more likely to be male, have a childhood onset of PTSD, high exposure to traumatic events and childhood adversities, and prior histories of separation anxiety disorder.**

The long-term consequences of childhood trauma or adversity include greater vulnerability to many psychiatric disorders that often involve complex comorbidity (Kessler et al., 2011).

Some attention has been placed on the role of **trauma history and the development of peritraumatic dissociation.**

Researchers and clinicians have recently turned their attention to factors

associated with the etiology of dissociation. One variable that has been repeatedly advanced

as a potential etiological factor is that of traumatic experiences, particularly childhood abuse.

Pathological levels of stress are thought to disrupt the normally integrative functions of mental

activity, leading some aspects of experience to be segregated from conscious awareness. A

number of studies have demonstrated significant associations between childhood physical or

sexual abuse and dissociation. For example, van IJzendoorn and Schuengel’s (1996) metaanalysis

of 26 studies across 2.108 subjects revealed a combined effect size of d = .52 for the

relation between dissociation and abuse. Effect sizes were similar for physical and sexual abuse

and there was very little difference in effect size as a function of trauma assessment method

(d = .56 for interview studies; d = .52 for questionnaires). Notably, however, most studies

involved adult patients retrospectively reporting their childhood abuse histories, leading critics

such as Kihlstrom (2005. p.233) to conclude that “although it is plausible that the dissociative

disorders have their origins in trauma, the presently available evidence for such an etiology is

far from convincing.” He suggests that the best evidence for causal links to dissociation will

come from prospective studies.

Other than the relation between dissociation and retrospectively reported abuse, Putnam

(1997) notes that relatively little is known about the etiology and development of dissociation.

The observation that non-traumatized individuals sometimes demonstrate dissociation and that

many trauma survivors do not dissociate suggests that there may be more to the etiology of

dissociation than trauma alone. A behavioral genetics twin study of dissociation found that

45% of the variance in DES taxon scores was accounted for by the shared environment and

53% by the non-shared environment, with no variance accounted for by genetic factors (Waller

& Ross, 1997). Putnam (1997) analyzed the potential moderating roles of age, gender, culture,

genetic factors, and education/intelligence and although moderating trends were found for

some of these variables, existing research has not convincingly demonstrated that any of these

variables significantly influence dissociation. In contrast, research has revealed a number of

family environmental factors significantly associated with dissociation, including level of

family risk (Malinosky-Rummel & Hoier, 1991), lack of parental care and warmth (Mann &

Sanders, 1994; Modestin et al., 2002). inconsistent discipline (Braun & Sachs, 1985; Mann &

Sanders, 1994), parental control (Modestin et al., 2002), and poor relationship between parents

(Maaranen et al., 2004). All of these family factors are also associated with abusive

environments (Wolfe, 1985).

A notable limitation of studies assessing the association between abuse and dissociation is that

they typically do not control for family environment when investigating the effects of abuse

incidents. Therefore, it is important to disentangle effects of specific abuse incidents from

effects of the sustained disturbances in the parent-child relationship in which such abuse events

are embedded. In a non-clinical sample, for example, Narang and Contreras (2005)

demonstrated that physical abuse history was only positively associated with DES scores in

the context of low levels of positive affective family environment, whereas at high levels of

affective family environment, physical abuse was unrelated to DES scores. Similarly, in a

sample of psychiatric inpatients, Carlson et al. (2001) assessed physical and sexual abuse,

caretaker dysfunction (e.g. alcohol abuse, mental health problems), and perceived social

support in childhood. Their analyses demonstrated that both caretaker dysfunction (p < .05)

and childhood social support (p < .01) accounted for unique variance in predicting dissociation.

Findings revealed that these family environmental factors, when entered in the first step of a

hierarchical regression, accounted for 16% (p < .001) of the variance in predicting dissociation.

Trauma and abuse variables, which were entered as the second step, accounted for an additional

16% (p < .001) of the variance, and childhood social support moderated the relation between

sexual abuse and dissociation. These two studies suggest that the development of dissociation

Dutra et al. Page 2

J Nerv Ment Dis. Author manuscript; available in PMC 2009 June 17.

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

in the context of trauma may be potentiated or buffered by familial environmental factors, such

as supportive family relationships.

Developmental researchers, in particular, have begun to explore the role of early childhood

attachment and parenting in the development of dissociation. Bowlby (1973) first suggested

that infants may internalize dissociated or unintegrated internal working models of their

primary caretakers, as well as of themselves. Main and Solomon (1990) then documented the

existence of contradictory, confused, and disoriented behavior among some infants in the

presence of the parent when needing comfort. These were termed disorganized/disoriented

attachment behaviors. Subsequent meta-analyses have confirmed the association between

infant disorganized attachment behavior, parental maltreatment, parental psychopathology,

disturbed parent-infant interaction, and childhood behavior problems (Madigan et al., 2006;

van IJzendoorn et al., 1999). Liotti (1992) further noted that there are suggestive parallels

between infant disorganization and adult dissociation in that both phenomena reflect a

pervasive lack of mental or behavioral integration. He speculated that this primary failure of

integration in infancy may result in vulnerability to dissociation later in life. Liotti’s model

challenges the theory that the etiology of dissociation resides in trauma alone, although he has

not suggested that disorganized attachment is the only etiological factor in dissociation. Rather,

he advanced a diathesis-stress model in which he hypothesized that disorganized attachment

leads to a vulnerability to dissociation in response to later trauma.

Support for the role of early attachment processes in pathways to dissociation has been provided

by a 20-year longitudinal study from infancy of 126 children from low-income families. Ogawa

et al. (1997) found that disorganized attachment and psychological unavailability of the

caregiver during the first two years of life were the strongest predictors of clinical levels of

dissociation as measured by the DES in young adulthood. These two variables alone accounted

for one-quarter of the variance in dissociation. Psychological unavailability of the caregiver

was the single strongest predictor of dissociation at age 19, accounting for 19% of the variance

in dissociation. Surprisingly, occurrence of prospectively assessed physical or sexual abuse

during childhood was not associated with dissociation scores.

The research literature as a whole, then, supports the view that both abuse experiences and

early attachment experiences may be important in the developmental trajectories that eventuate

in dissociation. In the current study, we evaluate predictors of dissociation in a prospective

longitudinal dataset from a low-income sample. Consistent with Ogawa et al.’s (1997) findings,

we predicted that quality of early care, including attachment disorganization, would be

associated with dissociation in young adulthood. Additionally, in accordance with the extensive

literature demonstrating a relationship between childhood trauma and dissociation (van

IJzendoorn & Schuengel, 1996), we hypothesized that childhood trauma would also be

associated with dissociation in young adulthood. Lastly, we predicted that quality of early care

would continue to account for unique variance in dissociation in young adulthood even after

accounting for variation in dissociation associated with traumatic experiences.

The **current study** focused on understanding the role of peritraumatic dissociation. We had three objectives a) Assess the role of dissociation as a predictor of PTSD symptomatology; b) Predict which subjects would develop peritraumatic dissociation; and c) Build a mediational model. Based on the previous literature we hypothesized that: a) Dissociation would significantly predict the development of PTSD symptoms, even after controlling for XXX; b) Traumatic load would predict dissociation; and c) Dissociation would significantly mediate between traumatic load and PTSD symptoms.

* + 1. Findings in literature

1. Limitations of the current literatura
2. Our study

**Methods**

**Measures**

Peritraumatic Dissociative Experiences Questionnaire (PDEQ).

Marmar et al. [18–20,22] have proposed a measure of

immediate dissociative response to trauma called the Peritraumatic

Dissociative Experiences Questionnaire (PDEQ).

The PDEQ-10 Self-Report Version (PDEQ-10SRV) consists

of 10 items describing dissociative experiences at the time a

traumatic event was occurring: moments of losing track of

time or blanking out; finding oneself acting on “automatic

pilot”; a sense of time changing during the event; the event

seeming unreal; a feeling as if floating above the scene; a

feeling of body distortion; confusion as to what was happening

to the self and others; not being aware of things that

happened during the event; and disorientation [20,21].

With a medical sample of adults who attended the ER after experiencing or witnessing a traumatic event, we assessed the role of peritraumatic dissociation in the development of PTSD

1. Predicting PTSD

We studied variables that have been proven (Brewin et al., 2000; Ozer et al., 2008) to be relevant predicting PTSD symptoms one month after suffering a traumatic event: a) demographic variables: age, sex and education; b) non-demographics personal characteristics salient for psychological processing and functioning: perceived social support, traumatic load; and c) aspects of the traumatic event or sequeale: dissociation and traumatic stress during the event.

* 1. We firs calculated the correlation between each variable and the development of PTSD symptoms:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age | Education | Dissociation | Traumatic stress | Traumatic load | Social support |
| PTSD symptoms | 0.09 | -0.19 | 0.49 | 0.49 | 0.32 | -0.23 |

* 1. Then included them all in a multiple regression (r34), and controlling for intervention, found that only dissociation during the traumatic event was a significant predictor one month after. Persons who reported experiences more dissociative experiences were more likely to develop PTSD. Age, education, previous traumatic experiences, perceived social support, and traumatic stress during the were not significant predictors.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coefficients: | |  |  |  |  |
|  | Estimate | Std. Error | t value | Pr(>|t|) |  |
| (Intercept) | 22.23911 | 11.83683 | 1.879 | 0.066 | . |
| Traumatic load | 1.35894 | 0.85259 | 1.594 | 0.1171 |  |
| Age | 0.06981 | 0.10002 | 0.698 | 0.4884 |  |
| Gender - Male | -6.67248 | 3.60394 | -1.851 | 0.0699 | . |
| Education | -0.34509 | 0.46615 | -0.74 | 0.4625 |  |
| Intervention – Psicoe | 7.11858 | 3.3709 | 2.112 | 0.0396 | \* |
| Social Support | -0.14133 | 0.17714 | -0.798 | 0.4287 |  |
| Dissociation | 0.50479 | 0.19079 | 2.646 | 0.0108 | \* |
| Traumatic stress | 0.27729 | 0.16687 | 1.662 | 0.1027 |  |
|  |  |  |  |  |  |
| Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1 | | | | |  |
|  | | | | |  |

Residual standard error: 12.88 on 51 degrees of freedom; (3 observations deleted due to missingness); Multiple R-squared: 0.4458; Adjusted R-squared: 0.3589; F-statistic: 5.129 on 8 and 51 DF, p-value: 0.0001028

1. Predicting dissociation

Because dissociation during the event proved to be the most significant predictor, which is consistent with previous findings (Ozer et al., 2008) we tried to understand what predicts dissociation (r25). For this we used a larger sample, since we only needed T0 data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coefficients: | |  |  |  |  |
|  | Estimate | Std. | Error | t value | Pr(>|t|) |
| (Intercept) | 40.67025 | 5.08483 | 7.998 | 1.28E-13 | \*\*\* |
| Traumatic load | 0.81886 | 0.37829 | 2.165 | 0.0317 | \* |
| Age | -0.01543 | 0.05329 | -0.29 | 0.7724 |  |
| Sex Male | -1.82539 | 1.65695 | -1.102 | 0.272 |  |
| Education | -0.95519 | 0.20126 | -4.746 | 4.11E-06 | \*\*\* |
| Social Support | -0.12469 | 0.08393 | -1.486 | 0.139 |  |

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 11.16 on 187 degrees of freedom; (947 observations deleted due to missingness); Multiple R-squared: 0.1637; Adjusted R-squared: 0.1414; F-statistic: 7.323 on 5 and 187 DF, p-value: 2.731e-06

We found that education and traumatic load significantly predict how much a person will experience dissociation during a traumatic event. Those who are less educated are more likely to dissociate more. At the same time, the greater the number of previous traumatic experiences, the more likely it is that a person will dissociate when experiencing a new traumatic event.

1. As a next logical step we tried mediational models in which each of these significant variables (traumatic load and education) predicted dissociation, which in turn predicted PTSD symptomatology
   1. TQ\_t0 (traumatic load) -> PDEQ\_t0 (dissociation) -> PCL\_t1 (PTSD 1 month after) - Mediational Model I

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Causal Mediation Analysis; Quasi-Bayesian Confidence Intervals | | | | |
|  | Estimate | 95% CI Lower | 95% CI Upper | p-value |
| ACME | 0.588 | -0.389 | 2.058 | 0.25 |
| ADE | 1.331 | -1.435 | 4.105 | 0.34 |
| Total Effect | 1.919 | -0.945 | 4.674 | 0.18 |
| Prop. Mediated | 0.234 | -1.787 | 2.831 | 0.33 |
| Sample Size Used: 57; Simulations: 10000 | | |  |  |

* 1. CIDI\_A8\_basal (education) -> PDEQ\_t0 (dissociation) -> PCL\_t1 (PTSD 1 month after) - Mediational model V

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Causal Mediation Analysis; Quasi-Bayesian Confidence Intervals | | | | |
|  | Estimate | 95% CI Lower | 95% CI Upper | p-value |
| ACME | 0.599 | -0.369 | 2.057 | 0.25 |
| ADE | 1.338 | -1.468 | 4.137 | 0.35 |
| Total Effect | 1.936 | -0.978 | 4.762 | 0.18 |
| Prop. Mediated | 0.235 | -1.749 | 3.032 | 0.33 |
| Sample Size Used: 57; Simulations: 10000 | | |  |  |

Neither one of these mediational models were statistically significant, possibly due to our small sample size. Future research should replicate these analyses with greater samples.

Conclusion: Even though we could not prove a mediational role for dissociation, our findings prove that dissociation is the most important predictor for PTSD. Traumatic load, as well as education, predict who will dissociate most during a traumatic event. Persons with a larger traumatic load (i.e., report more traumatic events in their history), and who are less educated, are more likely to dissociate during a traumatic event. And those who dissociate most, are more likely to develop PTSD a month after the event. Our results are consistent with previous literature (Brewin et al., 2000; Ozer et al., 2008).

Important clinical implications: identifying persons who dissociated most during a traumatic event (e.g., earthquake) may help predict, and prevent if adequate help or treatment is provided, PTSD symptomatology. Since we know who are at most risk for dissociating (high traumatic load and low education) it would be relevant to screen these vulnerable populations first.

Future research with greater sample size are needed to prove the mediational models presented in this paper.

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THE END ☺

*Journal of Traumatic Stress*

*Brief reports* (2,500 words) are for pilot studies or uncontrolled trials of an intervention, case studies that cover a new area, preliminary data on a new problem or population, condensed findings from a study that does not merit a full article, or methodologically oriented papers that replicate findings in new populations or report preliminary data on new instruments.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |  |  |
|  | Submuestra n=147 |  |  |  |  |  |  |  |  |
| r22 | Depression t1 BDI |  |  |  |  |  |  |  |  |
| r24 | PTSD score t1 PCL |  |  |  |  |  |  |  |  |
| r25 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |  |  |
| r26 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |  |  |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social | Dissociation | Traumatic stress |
|  | Submuestra n=147 |  |  |  |  |  |  |  |  |
| r32 | Depression t1 BDI |  |  |  |  |  |  |  |  |
| r34 | PTSD score t1 PCL |  |  |  |  |  |  |  |  |

Estas 4 mediaciones no son significativas

r34 <- lm(formula = PCL\_t1 ~ TQ\_t0 + Edad + Sexo + CIDI\_A8\_basal + rama + MSPSS\_t0 + PDEQ\_t0 + PDI\_t0, data = mydata)

r34

summary(r34)# II: TQ\_t0 (traumatic load) -> PDEQ\_t0 (dissociation) -> BDI\_t1 (depression 1 month after)

# III: TQ\_t0 (traumatic load) -> PDI\_t0 (peritraumatic distress) -> PCL\_t1 (PTSD 1 month after)

# IV: TQ\_t0 (traumatic load) -> PDI\_t0 (peritraumatic distress) -> BDI\_t1 (depression 1 month after)

Dissociation predicts PTSD, not traumatic load, sex, age or education.

Traumatic load, education and social support predict dissociation. Not sex, or age

Not enough power for mediational model: traumatic load -> dissociation -> PTSD

1. Traumatic Load
2. Dissociation
3. PTSD
4. Relation between traumatic load, dissociation, and PTSD

Moderational models could be used as well. With dissociation and social support

1. Do these variables moderate de relationship?
   1. Demographics: sex, age, education
   2. Social support

Started writing after reading Ozer et al 2008 and Brewin 2000

With a medical sample of adults who attended the ER after experiencing or witnessing a traumatic event, we assessed the role of that peritraumatic dissociation in the development of PTSD

1. Predicting PTSD

We studied variables that have been proven (Brewin et al., 2000; Ozer et al., 2008) to be relevant predicting PTSD symptoms one month after suffering a traumatic event: a) demographic variables: age, sex and education; b) non-demographics personal characteristics salient for psychological processing and functioning: perceived social support, traumatic load; and c) aspects of the traumatic event or sequeale: dissociation and traumatic stress during the event.

* 1. We firs calculated the correlation between each variable and the development of PTSD symptoms:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age | CIDI\_A8\_basal  Education | PDEQ\_t0  Dissociation | PDI\_t0  Traumatic stress | TQ\_t0  Traumatic load | MSPSS\_t0  Social support |
| PCL\_t1  PTSD symptoms | 0.09 | -0.19 | 0.49 | 0.49 | 0.32 | -0.23 |

* 1. Then included them all in a multiple regression (r34), and controlling for intervention, found that only dissociation during the traumatic event was a significant predictor one month after. Persons who reported experiences more dissociative experiences were more likely to develop PTSD. Age, education, previous traumatic experiences, perceived social support, and traumatic stress during the were not significant predictors.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coefficients: | |  |  |  |  |
|  | Estimate | Std. Error | t value | Pr(>|t|) |  |
| (Intercept) | 22.23911 | 11.83683 | 1.879 | 0.066 | . |
| TQ\_t0 | 1.35894 | 0.85259 | 1.594 | 0.1171 |  |
| Edad | 0.06981 | 0.10002 | 0.698 | 0.4884 |  |
| SexoMasculino | -6.67248 | 3.60394 | -1.851 | 0.0699 | . |
| CIDI\_A8\_basal | -0.34509 | 0.46615 | -0.74 | 0.4625 |  |
| ramaPsicoeducaci | 7.11858 | 3.3709 | 2.112 | 0.0396 | \* |
| MSPSS\_t0 | -0.14133 | 0.17714 | -0.798 | 0.4287 |  |
| PDEQ\_t0 | 0.50479 | 0.19079 | 2.646 | 0.0108 | \* |
| PDI\_t0 | 0.27729 | 0.16687 | 1.662 | 0.1027 |  |
| --- |  |  |  |  |  |
| Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1 | | | | |  |
|  | | | | |  |

Residual standard error: 12.88 on 51 degrees of freedom; (3 observations deleted due to missingness); Multiple R-squared: 0.4458; Adjusted R-squared: 0.3589; F-statistic: 5.129 on 8 and 51 DF, p-value: 0.0001028

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Because dissociation during the event proved to be the most significant predictor, which is consistent with previous findings (Ozer et al., 2008) we tried to understand what predicts dissociation (r25). For this we used a larger sample, since we only needed T0 data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coefficients: | |  |  |  |  |
|  | Estimate | Std. | Error | t value | Pr(>|t|) |
| (Intercept) | 40.67025 | 5.08483 | 7.998 | 1.28E-13 | \*\*\* |
| Traumatic load | 0.81886 | 0.37829 | 2.165 | 0.0317 | \* |
| Age | -0.01543 | 0.05329 | -0.29 | 0.7724 |  |
| Sex Male | -1.82539 | 1.65695 | -1.102 | 0.272 |  |
| Education | -0.95519 | 0.20126 | -4.746 | 4.11E-06 | \*\*\* |
| Social Support | -0.12469 | 0.08393 | -1.486 | 0.139 |  |

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 11.16 on 187 degrees of freedom; (947 observations deleted due to missingness); Multiple R-squared: 0.1637; Adjusted R-squared: 0.1414; F-statistic: 7.323 on 5 and 187 DF, p-value: 2.731e-06

We found that education and traumatic load significantly predict how much a person will experience dissociation during a traumatic event. Those who are less educated are more likely to dissociate more. At the same time, the greater the number of previous traumatic experiences, the more likely it is that a person will dissociate when experiencing a new traumatic event.

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   1. TQ\_t0 (traumatic load) -> PDEQ\_t0 (dissociation) -> PCL\_t1 (PTSD 1 month after) -Mediational Model I

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Causal Mediation Analysis; Quasi-Bayesian Confidence Intervals | | | | |
|  | Estimate | 95% CI Lower | 95% CI Upper | p-value |
| ACME | 0.588 | -0.389 | 2.058 | 0.25 |
| ADE | 1.331 | -1.435 | 4.105 | 0.34 |
| Total Effect | 1.919 | -0.945 | 4.674 | 0.18 |
| Prop. Mediated | 0.234 | -1.787 | 2.831 | 0.33 |
| Sample Size Used: 57; Simulations: 10000 | | |  |  |

* 1. CIDI\_A8\_basal (education) -> PDEQ\_t0 (dissociation) -> PCL\_t1 (PTSD 1 month after) - Mediational model V

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Causal Mediation Analysis; Quasi-Bayesian Confidence Intervals | | | | |
|  | Estimate | 95% CI Lower | 95% CI Upper | p-value |
| ACME | 0.599 | -0.369 | 2.057 | 0.25 |
| ADE | 1.338 | -1.468 | 4.137 | 0.35 |
| Total Effect | 1.936 | -0.978 | 4.762 | 0.18 |
| Prop. Mediated | 0.235 | -1.749 | 3.032 | 0.33 |
| Sample Size Used: 57; Simulations: 10000 | | |  |  |

Neither one of these mediational models were statistically significant, possibly due to our small sample size. Future research should replicate these analyses with greater samples.

C:\Users\Paula Errazuriz\Dropbox\1 PROYECTOS\_INVESTIGACION\desastres\_naturales\paper factores riesgo PTSD Rodrigo\R\sintaxis\_R\_161105

####### Proyect 1: past traumatic experiences as predictor of mental health after

#new traumatic event and after 1 month (time 1)

### Variables of interest

## Numeric variables

# Edad

# CIDI\_A8\_basal: years of education

# BDI\_t0: Depression t0 (symptoms last 7 days)

# BDI\_t1: Depression t1 (symptoms last 7 days)

# PCL\_t0: PTSD score t0 (symptoms last month; inespecific, not realated to 1 event)

# PCL\_t1: PTSD score t1 (symptoms last month; inespecific, not realated to 1 event)

# PDEQ\_t0: dissociation during last traumatic event

# PDI\_t0: peritraumatic distress during the last traumatic event

# TQ\_t0: traumatic load

# MSPSS\_t0: percived social support?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Variables Independientes | | | | | |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |
|  | Con educación |  |  |  |  |  |  |
| r1 | Depression t0 BDI |  |  |  |  |  |  |
| r2 | Depression t1 BDI |  |  |  |  |  |  |
| r3 | PTSD score t0 PCL |  |  |  |  |  |  |
| r4 | PTSD score t1 PCL |  |  |  |  |  |  |
| r5 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r6 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |
|  | Sin educación |  |  |  |  |  |  |
| r11 | Depression t0 BDI |  |  |  |  |  |  |
| r12 | Depression t1 BDI |  |  |  |  |  |  |
| r13 | PTSD score t0 PCL |  |  |  |  |  |  |
| r14 | PTSD score t1 PCL |  |  |  |  |  |  |
| r15 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r16 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |
|  | Muestra total  Con educación + apoyo |  |  |  |  |  |  |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |
|  |  |  |  |  |  |  |  |
| r21 | Depression t0 BDI |  |  |  |  |  |  |
| r22 | Depression t1 BDI |  |  |  |  |  |  |
| r23 | PTSD score t0 PCL |  |  |  |  |  |  |
| r24 | PTSD score t1 PCL |  |  |  |  |  |  |
| r25 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r26 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |

Resultados modelos con educación + apoyo (Modelos definitivos – r21 a r26)

Controlando por sexo, edad, años de educación, intervención (para T1) y percepción de apoyo social, el número de experiencias traumáticas predice significativamente la sintomatología de PTSD inmediatamente después del evento traumático y 1 mes después. A su vez, también predice el grado de disociación y estrés traumático que experimenta la víctima inmediatamente después del evento. Mientras más eventos traumáticos ha vivido una persona antes del último evento, más probable es que presente síntomas de PTSD, disociación y estrés traumático, manteniéndose el efecto sobre los síntomas de PTSD aún un mes después del evento.

Sin embargo, el controlando por sexo, edad, años de educación, intervención (para T1) y percepción de apoyo social, el número de experiencias traumáticas NO predice significativamente la sintomatología depresiva inmediatamente después del evento traumático ni un mes después.

El apoyo social disminuye la probabilidad de presentar depresión inmediatamente después y 1 mes después. Este apoyo social también disminuye la probabilidad de presentar PTSD inmediatamente después, pero no 1 mes tiempo después. Y tampoco se asocia a una disminución en la probabilidad de presentar disociación ni distres peritraumático.

La edad no tiene un impacto en la presentación de sintomatología.

El sexo y educación impactan las mismas presentaciones sintomáticas, con las mujeres y personas de menor educación presentando más depresión inmediatamente después (pero no X tiempo después), PTSD inmediatamente después (pero no X tiempo después), y más sintomatología de estrés traumático. Adicionalmente, las personas con menor educación presentan más disociación inmediatamente después.

La intervención no impacta la sintomatología.

Reunión con Rodrigo Figueroa y Paula 161104

Revisar la correlación entre BDI y PCL

Lo menos publicado sobre disociación y distres – centrarse en eso. Y relacionarlo con dpet y ptsd t1

Teóricamente ptsd 1 correlaciona con bdi 1;

El apoyo social debería disminuir ptsd t1

Considerar: trauma vivido de forma individual, no colectivo. T0 dentro de las primeras 72 horas, generalmente pocas horas

Luego de la reunión con Rodrigo quise ver si los resultados se mantenían considerando los pacientes para los cuales hay info en t0 y t2 ya que sólo para ellos uno puede comparar lo que pasa en el tiempo 1 con lo que les pasa en el tiempo 2. Lo otro sería meter el tiempo como moderador

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |
|  | Submuestra n=147  Con educación + apoyo |  |  |  |  |  |  |
| r21 | Depression t0 BDI |  |  |  |  |  |  |
| r22 | Depression t1 BDI |  |  |  |  |  |  |
| r23 | PTSD score t0 PCL |  |  |  |  |  |  |
| r24 | PTSD score t1 PCL |  |  |  |  |  |  |
| r25 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r26 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |

Creo sería interesante centrarme en esto: carga traumática como predictor de disociación y traumatic stress

Se mantienen similares los resultados. Sin embargo, los distintos modelos no son comparables porque los que requieren datos del t1 tienen un n mucho menor y por lo tanto menos poder

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |
|  | Submuestra n=65  Con educación + apoyo |  |  |  |  |  |  |
| r21 | Depression t0 BDI |  |  |  |  |  |  |
| r22 | Depression t1 BDI |  |  |  |  |  |  |
| r23 | PTSD score t0 PCL |  |  |  |  |  |  |
| r24 | PTSD score t1 PCL |  |  |  |  |  |  |
| r25 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r26 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |

Al eliminar todos los casos en que los pacientes no tienen info en el tiempo 1 los modelos son comparables pero casi nada es significativo. Sin embargo sí es intersante ver que la carga traumática pesa aún así. A continuación dejo sólo los modelos que buscan explicar el tiempo 1 ya que la medición t0 no es muy real porque incluye síntomas presentes previo al evento traumático nuevo.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Modelos y V Dependientes | # traumas traumatic load | sexo | edad | educación | Intervención | Apoyo social |
|  | Submuestra n=65  Con educación + apoyo |  |  |  |  |  |  |
| r22 | Depression t1 BDI |  |  |  |  |  |  |
| r24 | PTSD score t1 PCL |  |  |  |  |  |  |
| r25 | Dissociation t0 PDEQ\_t0 |  |  |  |  |  |  |
| r26 | Traumatic stress t0 PDI\_t0 |  |  |  |  |  |  |

La carga traumática predice síntomas de PTSD al mes de un evento traumático, pero no la depresión. Al contrario, el apoyo social predice la depresión al mes de un evento, pero no la presencia de PTSD. La carga traumática, el apoyo social, y el tipo de intervención no predicen la disociación ni el traumatic stress durante el evento.

Los modelos de mediación probados no son significativos por lo que creo debemos centrarnos en lo anterior (se lo propuse por mail a rodrigo el 161222). Tambiéns quiero hacer correlaciones de todas las variables para entender mejor los datos.

Los modelos de mediación que probamos son:

## Mediational models:

# I: TQ\_t0 (traumatic load) -> PDEQ\_t0 (dissociation) -> PCL\_t1 (PTSD 1 month after)

# II: TQ\_t0 (traumatic load) -> PDEQ\_t0 (dissociation) -> BDI\_t1 (depression 1 month after)

# III: TQ\_t0 (traumatic load) -> PDI\_t0 (peritraumatic distress) -> PCL\_t1 (PTSD 1 month after)

# IV: TQ\_t0 (traumatic load) -> PDI\_t0 (peritraumatic distress) -> BDI\_t1 (depression 1 month after)

## Factor variables

# Sexo\*: sex

# tipo\_trauma\*: trauma tipe

# rama\*: intervention (PAP; Psicoeducation)

# CIDI\_K\_t1\*: presence of PTSD at t1? (TEPT- TEPT+)

Resultados modelos con educación + apoyo (Modelos definitivos – r21 a r26)

Controlando por sexo, edad, años de educación, intervención (para T1) y percepción de apoyo social, el número de experiencias traumáticas predice significativamente la sintomatología de PTSD inmediatamente después del evento traumático y 1 mes después. A su vez, también predice el grado de disociación y estrés traumático que experimenta la víctima inmediatamente después del evento. Mientras más eventos traumáticos ha vivido una persona antes del último evento, más probable es que presente síntomas de PTSD, disociación y estrés traumático, manteniéndose el efecto sobre los síntomas de PTSD aún un mes después del evento.

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Considerar: trauma vivido de forma individual, no colectivo. T0 dentro de las primeras 72 horas, generalmente pocas horas

BDI\_t0:

# BDI\_t1:

# PCL\_t0:

# PCL\_t1:

# MSPSS\_t0: percived social support?

# PDEQ\_t0: dissociation after trauma score

# PDI\_t0: traumatic stress after trauma

# TQ\_t0: trauma history (number of traumatic events?)

Posibles journals

(publicar en Inglés; Devin Atala puede revisar ingles a cambio de autoria). Preguntar si estaría de acuerdo en traducir parte importante

Sugeridos por Rodrigo:

* Journal of Traumatic Stress <http://www.ejpt.net/index.php/ejpt/pages/view/guidelines> (Impact Factor: 2.624; ISI Journal Citation Reports © Ranking: 2015: 28/121 (Psychology Clinical); 39/136 (Psychiatry (Social Science). Original basic and clinical research articles (click here to download guidelines) that consolidate and expand the theoretical and professional basis of the field of traumatic stress (max 6000 words incl. abstract and references, excl. tables/figures)
* Journal of trauma & dissociation: ISI: 0.43
* European journal of psychotraumatology: ISI: 2.325

Variables de interés:

Baseline only

MSPSS\_t0 (percepción apoyo social): escala completa

Baseline and after

IDEA GANADORA:

**Número y tipo de traumas en la historia se podría usar como predictor de otras variables como**:

- BDI (depresión al comienzo)

- PCL-C (estrés post-traumático?)

-PEDQ – nivel de disociación

-recuperación del evento (entre baseline y post, controlando por tipo de tratamiento)

SEGUÍ DESARROLLANDO ESTA IDEA DENTRO DE R

De acuerdo a la versión más reciente del Manual Diagnóstico y Estadístico de Trastornos Mentales (DSM-5; [American Psychiatric Association, 2013](http://dsm.psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596)), el *trauma* es definido como cualquier situación de exposición a muerte, lesiones graves o violencia sexual, real o amenaza de ésta, en forma directa o como testigo, familiar o cercano a la víctima. También se considera trauma la exposición a detalles aversivos en virtud de la naturaleza del trabajo de una persona, como por ejemplo rescatistas, personal del Servicio Médico Legal, fotógrafos de la policía, entre otros.

Las crisis, duelos, tragedias o traumas producen fuertes reacciones emocionales en la mayoría de las personas, y que un grupo minoritario pero significativo de quienes viven un trauma desarrollará secuelas emocionales de largo plazo. El *Trastorno de Estrés Postraumático* (TEPT) ([Cova, Rincón, Grandón, & Vicente, 2011](http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-92272011000300010)), está caracterizado por reexperimentación involuntaria del trauma a través de imágenes, recuerdos y/o sensaciones involuntarias, casi oníricas acerca del trauma; fuerte malestar y/o necesidad de escapar de personas, situaciones, lugares o cosas que recordaran el evento; miedo, culpa, rabia, tristeza, vergüenza y/o o sensación de embotamiento emocional; y sensación de estar permanentemente alerta o "en guardia" frente a peligros, lo que produce desconcentración, irritabilidad e insomnio, entre otros fenómenos (Fig. 1) ([Friedman, Resick, Bryant, & Brewin, 2011](http://onlinelibrary.wiley.com/doi/10.1002/da.20767/abstract)). Se ha descrito que hasta un 11,8% de las personas que concurren a los servicios de atención primaria pueden tener TEPT, sin embargo su diagnóstico es mucho más bajo ([Wade, Howard, Fletcher, Cooper, & Forbes, 2013](http://www.ncbi.nlm.nih.gov/pubmed/24024219), [Grinage 2003](http://www.aafp.org/afp/2003/1215/p2401.html); [Stein, McQuaid, Pedrelli, Lenox, & McCahill, 2000](http://www.ncbi.nlm.nih.gov/pubmed/10936633)).

A diferencia de lo que se pensaba antiguamente, la experiencia de haber vivido un trauma es muy frecuente en la vida de las personas, variando la frecuencia entre diferentes países. Por ejemplo, en un estudio casi un 80% de la población de México reportó haber vivido un trauma alguna vez en su vida, en comparación con Alemania, donde sólo un poco más del 20% reportó lo mismo ([Norris et al., 2003](http://www.ncbi.nlm.nih.gov/pubmed/14674876); [Perkonigg, Kessler, Storz, & Wittchen, 2000](http://www.ncbi.nlm.nih.gov/pubmed/10674950)). En Estados Unidos y Australia la cifra fue de poco más de 50% ([Creamer, Burgess, & McFarlane, 2001](http://www.ncbi.nlm.nih.gov/pubmed/11681550); [Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995](http://www.ncbi.nlm.nih.gov/pubmed/7492257)). Chile se encuentra en una situación intermedia: casi un 40% de los chilenos reportó haber vivido un trauma alguna vez en su vida ([Zlotnick et al., 2006](http://www.ncbi.nlm.nih.gov/pubmed/16854253)).

La incidencia de TEPT luego de un trauma varía según el tipo de trauma, su severidad, su duración y la cantidad de tiempo que ha pasado desde que ocurrió el evento. En términos generales, se describe que una de cada siete personas (14%) queda con secuelas emocionales de largo plazo luego de un trauma, como TEPT, depresión post-trauma o trastornos de ansiedad ([Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995](http://www.ncbi.nlm.nih.gov/pubmed/7492257); [Norris et al., 2003](http://www.ncbi.nlm.nih.gov/pubmed/14674876); Zlotnick et al., 2006). La violación es el tipo de trauma más patogénico, dando origen a un TEPT en un 77,1% de las víctimas hombre y 47,1% de las víctimas mujeres (Zlotnick et al., 2006). El tipo de trauma menos patogénico es ser testigo de la muerte o accidente grave de otra persona, con incidencias entre 1,3 y 7,0% ([Breslau, Davis, Andreski, & Peterson, 1991](http://www.ncbi.nlm.nih.gov/pubmed/1996917); [Kessler et al., 1995](http://www.ncbi.nlm.nih.gov/pubmed/7492257); [Norris et al., 2003](http://www.ncbi.nlm.nih.gov/pubmed/14674876); [Perkonigg et al., 2000](http://www.ncbi.nlm.nih.gov/pubmed/10674950); [Zlotnick et al., 2006](http://www.ncbi.nlm.nih.gov/pubmed/16854253)). Las agresiones físicas y los asaltos también son altamente patogénicos. Afortunadamente, aunque el combate y las agresiones sexuales son los tipos de trauma más patogénicos de todos, son relativamente más infrecuentes. El tipo de trauma que más comúnmente explica un TEPT en Chile son los accidentes de tránsito graves y la muerte inesperada de un ser querido ([Zlotnick et al., 2006](http://www.ncbi.nlm.nih.gov/pubmed/16854253)). Los desastres naturales también pueden ser una causa importante de TEPT. Se estima que entre un 30-40% de los directamente afectados; un 10-20% de los rescatistas y personal de ayuda humanitaria; y un 5-10% de la población general pueden desarrollar un TEPT luego de un desastre ([Galea, Nandi, & Vlahov, 2005](http://www.ncbi.nlm.nih.gov/pubmed/15958429)). En Chile, tres meses después del terremoto de 2010, casi un 25% de la población de la VIII Región del Bío-Bío presentaba un probable TEPT, y la cifra en todo el país alcanzaba poco más de un 10% ([Figueroa, Bas, & Padilla, 2014](http://es.wpamadrid2014.com/)).

Una experiencia altamente estresante que está cobrando mucho interés en el mundo académico es la de la pérdida repentina de un ser querido, que ha afectado alguna vez a un porcentaje significativo de la población. En una muestra representativa de la población general norteamericana de 27.537 adultos, [Keyes, Pratt, Galea, McLaughlin, Koenen, & Shear (2014)](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4119479/) determinaron que la muerte repentina de un ser querido había sido el tipo de evento traumático más frecuente y doloroso para los encuestados, y que - controlado por antecedentes psiquiátricos, otras experiencias traumáticas, y variables demográficas - por sí mismo era capaz de aumentar el riesgo de depresión, trastorno de pánico, manía, fobias, trastorno de ansiedad generalizada, abuso de alcohol y TEPT.

El último estudio de prevalencia de TEPT en Chile indicaba que un 4,4% de la población había presentado el trastorno alguna vez en su vida, y un 2,4% en el último año ([Vicente et al., 2006](http://ajp.psychiatryonline.org/doi/full/10.1176/ajp.2006.163.8.1362); [Vicente, Rioseco, Saldivia, Kohn, & Torres, 2002](http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0034-98872002000500007); [Zlotnick et al., 2006](http://www.ncbi.nlm.nih.gov/pubmed/16854253)). Estas son intermedias respecto a las reportadas en otros países. Por ejemplo, en Alemania, México y Estados Unidos de Norteamérica un 1,3%, 12,2% y 6,8% de la población, respectivamente, había presentado TEPT alguna vez en la vida (Kessler et al., 2005; Norris et al., 2003). Un 0,7%, 1,33% y 3,5% de la población de Alemania, Australia y Estados Unidos de Norteamérica había presentado TEPT en el último año ([Creamer et al., 2001](http://www.ncbi.nlm.nih.gov/pubmed/11681550); [Kessler, Chiu, Demler, Merikangas, & Walters, 2005](http://www.ncbi.nlm.nih.gov/pubmed/15939839); [Perkonigg et al., 2000](http://www.ncbi.nlm.nih.gov/pubmed/10674950)).

##### Factores de riesgo

El TEPT es más frecuente en las mujeres que en los hombres, con una relación de 2:1 ([Breslau, 2001](http://www.ncbi.nlm.nih.gov/pubmed/11495091)). Otros factores de riesgo incluyen una baja percepción de apoyo social y una alta percepción de estrés post-trauma ([Ozer, Best, Lipsey, & Weiss, 2003](http://www.ncbi.nlm.nih.gov/pubmed/12555794)), una alta percepción de riesgo vital durante el trauma, secuelas físicas y antecedentes psiquiátricos. Es importante señalar, sin embargo, que ninguno de estos factores incrementa el riesgo más de un 50% ([Brewin, Andrews, & Valentine, 2000](http://www.ncbi.nlm.nih.gov/pubmed/11068961); [Ozer, Best, Lipsey, & Weiss, 2003](http://www.ncbi.nlm.nih.gov/pubmed/12555794)). Aproximadamente un 80% de las personas que desarrolla un Trastorno de Estrés Agudo durante el primer mes post-trauma evoluciona hacia un TEPT ([Brewin, Andrews, Rose, & Kirk, 1999](http://www.ncbi.nlm.nih.gov/pubmed/10080549); [Harvey & Bryant, 1998](http://www.ncbi.nlm.nih.gov/pubmed/9642889)).

Entre los factores de riesgo de TEPT los más conocidos son ser mujer 7 , percibir bajo apoyo social y una alta carga de estrés después del trauma 8 , así como una alta percepción de riesgo vital durante el trauma, presentar secuelas físicas y/o tener antecedentes de trastornos psiquiátricos. Un 80% de las personas que desarrolla un Trastorno de Estrés Agudo durante el primer mes posttrauma

evoluciona hacia un TEPT, y del total de personas que desarrolla el cuadro, un tercio se mantiene sintomática una década después 9 , con un incremento en el riesgo de suicidio de 2,7 veces por sobre la población general 10 , y un alto costo en ausentismo laboral 9 . El TEPT ocupa el lugar número 44 en el ranking chileno de enfermedades que más aportan a la carga nacional de enfermedad 11 , y en el mundo aporta el equivalente al cáncer cérvico uterino 12 .

De allí la importancia de su prevención y tratamiento precoz.

Several risk factors of PTSD after disasters have been found in the previous literature, including female gender, minority status, lesser education, and pre-disaster psychopathology (North, Oliver, & Pandya, 2012). Most of them can be included in the concept “Social Determinants of Health”, defined by the World Health Organization as “... conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels” (WHO, n.d.). It has been estimated that around half of the variation in health could be determined by them, whereas the health system, the genes and the physical environment only account for 25%, 15% and 10%, respectively (Canada, 2009). Large-scale studies by the US Center for Disease Control (CDC) have begun to map psychological trauma itself to be a powerful social determinant of health showing how the number and type of traumatic events an individual experiences is associated with the development of a wide range of health problems throughout the life-course in various generations (Dube, Felitti, Dong, Giles, & Anda, 2003). The WHO (2014) publication on social determinants of mental health calls for increased research on trauma and the impact of social, economic, and environmental stressors in order to be able to effectively develop multileveled interventions and policies aimed at reducing key inequalities at both local and global levels. Little research, however, explores the social determinants of mental health in low- and middle-income countries (WHO, 2014). An exception can be seen in Myer, Stein, Grimsrud, Seedat, and Williams (2008) research in South Africa, which like Chile, has been classified as an upper middle income country (Kaiser Family Foundation, 2012). Meyer et al. (2008) found that after adjusting for demographic characteristics and life events, high levels of psychological distress were associated with participants among marginalized groups with lower socioeconomic status in South African society. These findings corroborate suggestions by life-course trauma researchers (e.g. Klest, 2012) to deepen understandings of the impact of social historical and 5 contextual factors on trauma, such as conditions of concentrated poverty and prior histories of victimization.

In terms of the impact of trauma from natural disasters, most of the risk factors previously identified in the literature have been found from small, post-disaster transversal studies (Dirkzwager, Grievink, van der Velden, & Yzermans, 2006; Norris, Friedman, & Watson, 2002; Yzermans et al., 2005), which is reasonable given the unpredictable nature of most disasters that precludes anticipation and research planning and funding. This limits the causal inference and increases the recall bias of these findings, making it essential to find ways to anticipate disasters and follow cohorts of individuals from before to after the event has struck, in order to increase the validity and causal inference of these results.

AGREGAR MÁS INFO ACÁ SOBRE FACTORES DE RIESGO QUE PIENSO USAR (ME FALTA CODE BOOK PARA ELEGIRLAS)

COPIAR METODOLOGÍA USADA POR ELLOS

Diseño : Este estudio corresponde a un Ensayo Clínico Randomizado (RCT) Población : 200 adultos (≥ 18 años) que recientemente hayan experimentado una experiencia traumática (así definida por el DSM5) 1 , reciente (hace menos de 72 horas), de origen nointencional, y que concurran a un servicio de urgencia de hospitales de la Región Metropolitana.

Criterios de inclusión:

● Adultos (≥ 18 años) que concurran al servicio de urgencia, ya sea en calidad de paciente o acompañante, que hayan sido víctimas de un trauma no intencional reciente (hace menos de 72 horas), y que cumplan alguno de los siguientes criterios:

○ Víctima directa, como familiar o como testigo de una situación que puso o pone

actualmente en riesgo la vida.

○ Víctima directa, como familiar o como testigo de una situación que puso o pone

actualmente en serio riesgo la integridad física.

● A modo de ejemplo, situaciones de este tipo incluyen accidentes graves, enfermedades catastróficas, procedimientos médicos altamente dolorosos, malas noticias médicas, catástrofes naturales, incendios, ser testigo de la muerte violenta de otra persona, explosiones, entre otros.

Criterios de exclusión:

● No comprende idioma español.

● No recuerda la experiencia traumática

● Intoxicación

● Pérdida de conciencia por más de 5 minutos

● Psicosis (pérdida del juicio de realidad).

● Niños y adolescentes (< 18 años)

● Personas en riesgo vital o en situación de inestabilidad médica que requiere implementar medidas de soporte vital incompatibles con la aplicación de PAP (fracturas graves, heridas con hemorragias severas no controladas, dolor insoportable, infarto al miocardio inestable, ).

● Familiares de personas en riesgo vital inminente o recientemente fallecidas en el servicio de urgencias en las que la oferta de participar en la investigación pueda causar aún mayor malestar.

● Compromiso de conciencia (Glasgow 2 < 15).

● Víctima directa e indirecta de trauma intencional (ej. asalto, secuestro, abuso sexual, acto terrorista, etc.).

● Pacientes vulnerables por estar afectados por algún trastorno psiquiátrico (se excluye trastorno de la personalidad), en tratamiento formal por médico (ej. esquizofrenia, retardo mental, autismo, trastorno obsesivo compulsivo, trastorno bipolar, depresión, Alzheimer, trastorno de pánico, etc.)

Instrumentos : todas las personas seleccionadas serán invitadas a completar los siguientes cuestionarios, los cuales volverán a ser aplicados luego de un mes por una psicóloga evaluadora:

Para el reclutamiento:

● CIDI, cuestionario demográfico

● PCLC 4 , para autoreporte de síntomas de TEPT

● HAMD 5 , para la observación clínica de síntomas depresivos

● BDI 6 , para el autoreporte de síntomas depresivos

● MSPSS 7, para la percepción de apoyo social

● THS 8 , para historia personal de trauma (no entiendo dif con TQ)

● PDEQ, para experiencias disociativas peritraumáticas

● PDI, para distrés peritraumático

● TQ, para experiencias traumáticas

● EVA, encuesta visual análoga para evaluar satisfacción con la intervención

Para la evaluación posterior (luego de 1 mes): los cuestionarios anteriores, más:

● CIDI, sección K

● HAMD 5 , para la observación clínica de síntomas depresivos

Regresión multiple

TEPT tiempo 0 = sexo (cidi 1) + edad (cidi 2) + estado civil / conviviente (cidi 4) + trabajo (cidi 7) + educación (cidi 8) + apoyo social (MSPSS) + trauma anterior (TQ total y n eventos) + tipo trauma actual + distrés peritraumático (PDI) + exp disociativas (PDEQ)

TEPT tiempo 1 = sexo (cidi 1) + edad (cidi 2) + estado civil / conviviente (cidi 4) + trabajo (cidi 7) + educación (cidi 8) + apoyo social (MSPSS) + trauma anterior (TQ total y n eventos) + tipo trauma actual + distrés peritraumático (PDI) + exp disociativas (PDEQ) + intervención (variable control)

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