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Women's EmotionS, Trauma and EmpowErMent (W-ES.T.EEM) study protocol: a psychoeducational support intervention for victims of domestic violence – a randomised controlled trial

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ABSTRACT

Introduction Intimate partner violence (IPV) is a widespread phenomenon that affects the physical and mental well-being of victims. Several barriers prevented sufferers from receiving face-to-face interventions. These obstacles increased with the advent of the COVID-19 pandemic, and online psychological intervention can represent a valid solution to increase the well-being of IPV victims. This manuscript describes the study protocol for a single blind randomised controlled trial that examines the efficacy of a web-based psychoeducational intervention for IPV victims that integrates dialectical behavioural therapy and the empowerment approach.

Methods and analysis Eighty-six women who were victims of IPV during the COVID-19 outbreak will be recruited by the Interdepartmental Center for Family Research (CIRF) staff from the several antiviolence centres located in Italy. Participants will be randomly allocated to the Women's EmotionS, Trauma and EmpowErMent experimental group or the treatment as usual control condition. Both interventions will be administered individually to each woman.

Ethics and dissemination The study protocol was approved by the Ethics Committee of the University of Padua (protocol no 4300). Written informed consent will be obtained from all research participants before study entry. Study results will be published as peer-reviewed articles. Any relevant protocol changes will be reported in the published articles. The results will be reported anonymously.

Trial registration number ISRCTN12880309.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The study consists of a single-blind randomised controlled trial for IPV victims.
⇒ Participants will be randomly allocated to two conditions: the treatment-as-usual (TAU) plus the Women's EmotionS, Trauma and EmpowErMent (W-ES.T.EEM) intervention (experimental group) and the TAU intervention (control group).
⇒ The W-ES.T.EEM intervention consists of an 8-week web-based psychoeducational intervention that integrates DBT with the empowerment approach.
⇒ One of the strongest limitations is that the recruitment of participants will be time-consuming.

INTRODUCTION

The term intimate partner violence (IPV) describes physical, sexual or psychological harm by a current or former partner,[1 2] and also includes controlling and stalking behaviours.[3 4] About 30% of women around the world have been victims of IPV during their lives.[5] Specifically, in Italy 16 140 women accessed hospitals' emergency room for the violence suffered between 2017 and 2019.[6] The situation worsened during the COVID-19 outbreak when an increase of 79.5% was registered.[7] Among the factors that triggered an increase in violence during the pandemic, there are: the redefinition of regular household routine, social isolation, increased time spent with the abuser, economic difficulties, closure of some antiviolence centres (AVCs).[8–11]

IPV can be characterised by three cyclical phases: (1) the 'Tension-Building' phase, which is accompanied with a rising sense of danger; (2) the 'Acute Battering Incident' phase, in which the perpetrator acts violence and (3) the 'Loving-Contrition' phase, in which the aggressor may show kindness and remorse for the violent episodes.[12 13] Repeated and cyclical exposure to violence, as well as the constant state of fear to which victims are exposed, contribute to the onset of post-traumatic symptoms among victims. Furthermore, due to the violence experienced, victims can present depression, anxiety, problematic substance abuse and suicide attempts.[14–20] The severity of women's symptoms appears to be associated with their ability to regulate emotions[21–23] that corresponds to their awareness and their ability to

employ adequate emotion regulation strategies according to environmental and social stimuli.[24–26] Indeed, Weiss *et al*[21] show that difficulties in regulating emotions are associated with the severity of post-traumatic stress disorder (PTSD) symptoms in IPV victims. Furthermore, PTSD and emotion regulation appear to also be related to alexithymia,[23 27 28] which concerns difficulties in identifying, labelling and cognitively processing our and others' emotions.[29 30] Indeed, as a consequence of the overwhelming nature of a traumatic episode, the ability to tolerate, identify and regulate emotions might be impaired.[23] However, only a few studies have investigated alexithymia levels in women victims of IPV,[31–34] and most of these studies report significantly higher levels of alexithymia in IPV victims compared with control groups.[32 33]

One of the most important, yet difficult, decisions to make for an IPV victim is whether to leave or stay in the relationship with the batterer.[35] Indeed, victims may encounter many external (eg, social and family) and internal (eg, hope) obstacles during the decision process.[12 35] In this regard, self-efficacy and self-esteem could act as protective factors that favour women's willingness to change. Self-efficacy refers to the perception of individuals that they are capable of dealing with circumstances and problems.[36–38] High levels of self-efficacy appear to predict positive change and encourage victims' decision to leave the violent relationship.[35 39] Similarly, IPV victims showing high self-esteem seem to be more likely to leave the batterer.[40–42] However, low self-esteem is common among victims of IPV, and, in particular, the emotional abuse of a controlling nature appears to have the worse consequences on victims' self-esteem.[40 43] Therefore, while treating this population, it is important to target both self-esteem and self-efficacy to develop interventions that can improve individuals' well-being, ability to self-manage and sense of security.[13 44 45]

Treatments for victims of IPV

Among the various treatments for IPV victims, empowerment interventions and Dialectical Behavior Therapy (DBT) have recently received particular attention due to their proven efficacy in improving self-esteem, self-efficacy and emotion regulation among victims of violence.[46 47]

Specifically, empowerment can be defined as a process by which people, organisations and communities gain mastery over issues of concern to them.[48] Both face-to-face and web-based empowerment interventions showed good results with IPV victims. Indeed, patients showed higher self-esteem, self-efficacy and learnt resourcefulness,[39 46] as well as decreased depressive symptoms and fear[39 49] after treatment.

Instead, DBT has been developed to treat chronic affect dysregulation in borderline personality disorder.[50] The main objectives of this approach are to foster individuals' mindfulness, interpersonal and emotion regulation skills.[50] Several studies have proven the efficacy of DBT in improving IPV victims' affect regulation problems, PTSD symptoms, interpersonal skills deficits and psychiatric symptoms.[47 51–53] However, to our knowledge, no web-based DBT interventions have yet been developed for IPV victims. However, web-based DBT has been shown to be useful in the treatment of psychological issues, such as suicidal ideation,[54] borderline personality disorder[55] and refusal to attend school in youth.[56] Furthermore, web-based interventions allow one to reach audiences that cannot or may be reluctant to participate in presence due to health problems or barriers to face-to-face participation.[5 57] Examples of these barriers are fear of retribution and shame.[5] Furthermore, during the COVID-19 pandemic additional barriers were experienced, including closure of AVCs and shelters or increased difficulties in reaching them, fear of taking the COVID-19 virus or transmitting it, closure of schools that led children to need more supervision at home.[8 9 58 59] Web-based interventions could help overcome these barriers.

Given these premises, the present manuscript aims to describe a web-based psychoeducational intervention for IPV victims: the Women's EmotionS, Trauma and EmpowErMent (W-ES.T.EEM) protocol. The intervention proposed here is based on an integration between the empowerment approach and DBT since the two interventions appear to have some common objectives, namely the patients' well-being, their self-esteem, their self-efficacy, their interpersonal and problem-solving skills.[47 60] However, despite the points in common, there are considerable differences which, if integrated, could favour the development of a more complete intervention for IPV victims.

MATERIALS AND METHODS

Study design

The study consists of a single-blind randomised controlled trial (RCT) with two conditions: an experimental group will receive the TAU plus the W-ES.T.EEM intervention, and a TAU control group. This RCT study conforms to Consolidated Standards of Reporting Trials.[61] The unblinding will be conducted only at the end of the last follow-up.

The design of the study started to be defined—overall trial start date—on the 21 April 2021 and the ethical approval has arrived on the 6 August 2021. The overall trial end date may be on the 31 December 2025.

Participants

Victims of IPV will be recruited from several AVCs in Italy. Specifically, a contact person for each AVCs will be identified. An online meeting will be scheduled through the Zoom platform to describe the project in detail, answer any doubts and carefully explain the inclusion criteria for the study participants.

Once eligible participants will be identified, the research staff will contact each of them to verify if they meet the inclusion criteria, explain the project, and answer possible concerns and doubts about it. After this contact, eligibility will be communicated to participants,

and they will then fill out the informed consent online, and the baseline questionnaire battery (T0) will be sent to them by email or chat. Participants will be eligible if: (1) older than 18 years old; (2) victims of IPV since the outbreak of the COVID-19 pandemic; (3) able to speak and understand Italian; (4) female and (5) had their first contact with AVC within 2 weeks before recruitment.

Exclusion criteria will instead be: (1) an inability to understand and participate in the psychoeducation intervention due to hearing, visual, cognitive or neurological difficulties and (2) getting any kind of therapy other than W-ES.T.EEM+TAU or TAU.

Sample size calculation

In line with previous studies, an a priori power analysis was performed to calculate the minimum sample size required to conduct this study.[62–64] The G*Power software (V.3.1.9.2)[65 66] was used. The required sample size was calculated for a multivariate repeated measure analysis of variance (MANOVA). Indeed, the research protocol will be administered to participants five times. Treatment condition was considered as a between-group variable (W-ES.T.EEM+TAU vs TAU), and time was considered as a within-subject variable (from baseline to 1-year follow-up). To the best of the author's knowledge, the present psychoeducational intervention was not implemented in previous studies. Therefore, the a priori statistics (partial η^2 and correlation between measures) were computed by examining previous studies using similar intervention (but not the same), target samples and that made use of similar constructs—for example.[52 53 67] Thus, the a priori effect size $f^2(V)$ for the global effect was set to 0.25 (medium effect size). The type I error rate probability (α) was set to 0.05 (two sided), and the power (1-β) was set at 0.95.[68–70] G*Power showed that there is a 95% chance to correctly reject the null hypothesis of no significant global effect with an overall sample of 86 participants (43 subjects per group).

Randomisation and blinding

The study consists of a single-blind RCT. The allocation of each participant within one of the two groups (W-ES.T.EEM+TAU vs TAU) will be carried out following the procedure below. First of all, to each subject will be assigned a unique ID code that will ensure the anonymity of the person. Second, the allocation within the two groups will be carried out through dedicated web site software (Randomization.com).[71] Both of these steps will be performed by two different persons who will meet the following requirements: (1) they must be external to the project; (2) they must not be aware of the purpose of the study and (3) they must not come into contact with each other. If one of these conditions is not met, these persons will be replaced by other persons. This procedure should ensure proper double-blind randomisation. Participants will be assigned to one of two conditions within seven working days from their baseline assessment (figure 1).

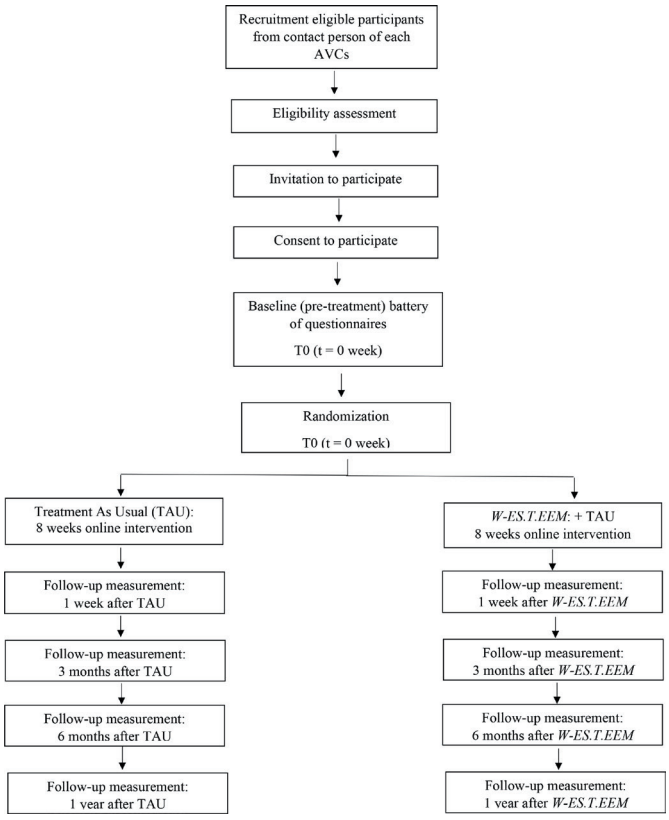

Figure 1 Flow chart of the W-ES.T.EEM study. AVC, antiviolence centres; W-ES.T.EEM, Women's EmotionS, Trauma and EmpowErment.

Patient assessment and measurements

Demographical data (eg, age, nationality, educational level, family composition, working status, current intimate relationship information), immigration status, alcohol consumption and substance abuse will be self-reported online at baseline.

The Italian version of the following psychological measures will also be collected online at baseline (T0), at treatment termination (T2—after 2 months), as well as after 3 months (T3), 6 months (T4) and 1 year after discharge intervention (T5).

Primary outcomes

The primary outcomes are the following, and they are the ones of greatest importance to the protocol.

Traumatic impact of the event

Impact of Event Scale Revised (IES - R)[72 73] will be used to evaluate the traumatic impact of IPV on the participants. The IES-R is a 22-item self-report questionnaire rated on a 5-point Likert scale from 0 ('not at all') to 4 ('extremely'). IES-R showed high internal consistency for both its total score (α=0.96) and the three subscales: hyperarousal (α=0.91; 'I felt irritable and angry'), avoidance (α=0.87; 'I tried not to think about it') and intrusion (α=0.94; 'Any reminders brought back feelings about it').[74]

Emotion regulation

Emotion regulation will be measured with the Difficulties Emotion Regulation Scale-Short Form (DERS-SF),[75 76] an 18-item self-report questionnaire rated on a 5-point Likert scale from 1 ('almost never') to 5 ('almost always'). The scale consists of 6 subscales and a total score, all presenting good internal reliability in its original formulation: (1) Non-acceptance of emotional responses (α=0.85; 'When I'm upset, I become irritated at myself for feeling that way.'); (2) Difficulty in a target-oriented behaviour (α=0.91; 'When I'm upset, I have difficulty focusing on other things.'); (3) Difficulty controlling impulses (α=0.89; 'When I'm upset, I become out of control.'); (4) Lack of emotional awareness (α=0.78; 'When I'm upset, I acknowledge my emotions.', reverse item); (5) Limited access to emotional regulation strategies (α=0.82; 'When I'm upset, I believe there is nothing I can do to make myself feel better.'); (6) Lack of emotional clarity (α=0.78); total score (α=0.89 'I am confused about how I feel').[75]

Victims of violence well-being

Victim well-being will be evaluated with the Clinical Outcomes in Routine Evaluation-Outcome Measures (CORE-OM),[77–79] a self-report questionnaire. The CORE-OM comprises 34 items rated on a 5-point Likert scale from 0 ('not at all') to 4 ('very often/always'). It evaluates four dimensions that presented good internal reliability in a nonclinical sample: (1) Subjective well-being (α=0.77; 'I felt optimistic about future'); (2) Problems/symptoms (α=0.90; 'I felt tense, anxious, nervous'); (3) Life functioning (α=0.86; ' felt able to cope when thigs go wrong'); (4) Risk (α=0.79; 'I felt better if dead'). The reliability of the total score was also excellent (α=0.94).[79]

Self-esteem

The self-esteem of IPV victims will be evaluated with the Rosenberg Self-Esteem Scale (RSES) self-report questionnaire,[80 81] which comprises 10 items rated on a 4-point Likert scale ranging from 0 ('completely disagree') to 3 ('completely agree'). The questionnaire showed high internal consistency (α=0.91; 'On the whole, I am satisfied with myself').[82]

Self-efficacy

The Generalised Self-Efficacy Scale (GSES)[83 84] will be used to measure self-efficacy level perceived by the respondents. It is a10-item self-report questionnaire, with answers rated on a 4-point Likert scale from 1 ('completely false') to 5 ('completely true'). The internal reliability of the scale is good (α=0.87; 'I can always manage to solve difficult problems if I try hard enough').[85]

Intensity of affects

The intensity of affects in IPV victims will be evaluated with the Intimate Violence and Traumatic Affect Scale (VITA),[86] a 28-item self-report questionnaire with answers rated on a 5-point Likert scale from 1 ('never') to 5 ('very often'). Five out of 28 items investigate the level of fear in victims of IPV (α=0.79; 'I feel/ have felt that I am in danger and that I have to do something'), eight items evaluate their perceived level of terror (α=0.9; 'I feel/felt constant terror'), nine items concern the shame experienced (α=0.93; 'I feel/felt humiliated') and six questions concern the feeling of guilt (α=0.87; 'I feel/felt a strong sense of guilt'). The internal consistency of the total scale was good too (α=0.93).[86]

Secondary outcomes

Secondary outcomes allow to assess additional effects of the intervention implemented and they are related to primary outcomes.

Violence

Participants' experience of violence will be evaluated with the Conflict Tactic Scale-2 (CTS-2).[87 88] The CTS-2 is a 39-item self-report questionnaire that comprises five subscales: negotiation, psychological aggression, physical assault, sexual coercion and physical injury. Items are rated on an 8-point frequency scale from 0 ('never') to 7 ('more than 20 times'). The internal consistency of the CTS-2 was excellent: negotiation (α=0.86; 'My partner showed care for me even though we disagreed'), psychological aggression (α=0.79; 'My partner did something against me out of disdain'), physical assault (α=0.86; 'My partner threw an object at me that could have hurt me'), sexual coercion (α=0.87; 'My partner used force (eg, by hitting me, holding me back or using a weapon) to have oral or anal sex') and physical injury (α=0.95; 'I fainted after being hit on the head by my partner during an argument').[87]

Violence at the time of COVID-19

A self-report questionnaire was built ad hoc to assess whether participants experienced a worsened IPV during the COVID-19 pandemic. The questionnaire comprises four items—one for each kind of violence (physical, psychological, economical, sexual; eg, 'Since the pandemic began, to what extent anti-COVID-19 restrictions have aggravated the physical violence you suffered')—rated on a 5-point frequency scale from 0 ('not at all') to 7 ('extremely').

Alexithymia

Alexithymia will be evaluated using the Toronto Alexithymia Scale-20 (TAS-20),[29 89] a self-report questionnaire with 20 items rated on a 5-point Likert scale from 1 ('strongly disagree') to 5 ('strongly agree'). The TAS-20 consists of a total score (α=0.87) and three factors: difficulty identifying feelings (F1) (α=0.87; 'Often confused about emotion I am feeling'), difficulty communicating feelings to others (F2) (α=0.82; 'Difficult to find words for feelings') and outward-oriented thinking (F3) (α=0.64; 'Find examination of feelings useful').[90]

Data will be collected using the Qualtrics platform. The answers will be anonymous and the participants will be free to discontinue treatment at any time.

Table 1 SPIRIT checklist illustrating the study procedures

	Enrolment	Allocation	Intervention		Follow-up		
Timepoint	Week 1	T0	T1 Start	T2 End	T3 3 months follow-up	T4 6 months follow-up	T5 1-year follow-up
Enrolment:							
Eligibility screen	X						
Informed consent	X						
Allocation		X					
Intervention—W-ES.T.EEM Protocol			X				
Assessment							
Baseline Demographic data, CTS-2, TAS-20, DERS-SF, CORE-OM, IES, RSES, VITA, GSES, violence at the time of COVI-D-19	X						
Outcome Demographic data, CTS-2, TAS-20, DERS-SF, CORE-OM, IES, RSES, VITA, GSE, violence at the time of COVI-D-19				X	X	X	X
Duration	1 week		2 months		21 months		

CORE-OM, Clinical Outcomes in Routine Evaluation-Outcome Measures; CTS-2, Conflict Tactic Scale-2; DERS-SF, Difficulties Emotion Regulation Scale-Short Form; IES, Impact of Event Scale; RSES, Rosenberg Self-Esteem Scale; TAS-20, Toronto Alexithymia Scale-20; VITA, Violence and Traumatic Affect; W-ES.T.EEM, Women's EmotionS, Trauma and EmpowErMent.

Procedure

As it is shown in table 1, participants who will meet the inclusion criteria will first be asked to give their online consent to participate in the research.

Then, the baseline questionnaires (T0/week 1) will be sent to them by email or chat, and they will be subsequently randomised into two different conditions:

- The TAU control group. According to the National Plan Against Sexual and Gender Violence,[91] inspired by the Istanbul Convention[92], women assigned to this condition will receive an online counselling intervention aimed at increasing their autonomy and empowering them.
- The W-ES.T.EEM experimental group. Participants assigned to this condition will receive the TAU plus the W-ES.T.EEM intervention (see detailed description below).

The treatment will take place 1 week after (T1/week 1) the baseline measurement and it will consist of 8 weekly sessions over a period of 2 months. Each online session will last around 45 minutes and will be administered individually to each woman through the Zoom Platform. Moreover, the study personnel will be trained before the implementation of this research protocol.

Then, following, outcome measures will be administered within 1 week from the end of the intervention (T2) after 3 (T3) and 6 (T4) months, and at 1 year (T5) from the end of the treatment.

Treatment as usual

It will consist of an online counselling intervention aimed at increasing IPV victims' autonomy (eg, economic independence) and empowerment (eg, self-esteem and self-efficacy). According to the National Plan Against Sexual and Gender Violence,[91] inspired by the Istanbul Convention [92], this counselling intervention will not be subdivided into specific standardised modules; indeed, these objectives will be tailored according to the victim's needs.

W-ES.T.EEM protocol

The web-based psychoeducational intervention described in this protocol integrates DBT[93] with the empowerment approach.[48]

Three main modules based on the integration between DBT and empowerment approach have been selected from the literature on psychological interventions for IPV victims according to their specific goals (see online supplemental material 1).[47 53 94–96]

The first is to provide information to IPV victims on the Walker[12]'s cycle of violence. This intervention can empower IPV victims by understanding the cycle and recognising the risks to which this cycle exposes victims.[13]

The second goal is to foster women's ability to identify their own and others' emotions, and to provide them with strategies to regulate them.[47] Specifically, the focus will be on five emotions—sadness, guilt, fear, shame and happiness—which appear to be critical for IPV victims.[86] In this

regard, this module also aims to teach mindfulness techniques. Mindfulness is a cornerstone of DBT practice and refers to acceptance, consciousness, and being entirely in the present moment in a non-judgemental way.[53 97] Mindfulness practice increases victims' ability to observe and describe their feelings in the hic et nunc, since this ability might be affected by invalidating experiences the batterer exposes them to.[47]

The third goal is to promote women's empowerment through the acquisition of self-respect, self-efficacy and self-esteem.[47 97] Training in DBT skills will be implemented by teaching how to identify life objectives and the steps to achieve them, as well as to acquire communicative skills of assertiveness and transparency.[97]

Moreover, at the end of each module a specific moment will be dedicated in which the subject will be asked if something has not been clear or has not been understood—so that each participant successfully completes each module. Providing this moment of feedback also aims to increase participants' adherence to treatment.

Once the W-ESTEEM +TAU or the TAU only are concluded, the women will meet with the psychologists of the AVCs to assess their situations. In fact, at that point an ad hoc intervention, when necessary, will be outlined based on any new needs of women according to the Istanbul Convention.[92]

Safety and security

Numerous safety and security aspects have been considered in planning the intervention. First, the platforms that we are going to use run with software updated according to the latest security and privacy requirements. Second, participants data will be safely stored on a protected server. Third, only members of the research team can access the data.

Furthermore, the possible risk of harm to women will be minimised by providing complete information about the project prior to voluntary participation. Participants can withdraw from the project at any time. In case of any need, doubt or psychological discomfort related to the intervention, participants will have the opportunity to consult the psychotherapist responsible for the study. Furthermore, a psychologist or a psychotherapist from the AVC from which the woman has been recruited will attend all W-ES.T.EEM sessions in case of any need.

Each AVC's contact person and the psychologist of W-ES.T.EEM's sessions will make sure that all women participating in the sessions have a safe place to connect to the online meetings (eg, their own home if they no longer live with the batterer). Participants will have the opportunity to join the W-ES.T.EEM sessions from a safe room set up in each AVC if they do not have a safe place to do the online sessions. Furthermore, if necessary, the AVCs themselves will share every week the Zoom link to participate in the W-ES.T.EEM sessions in time slots agreed with the woman. These time slots are those in which the woman declares to be safest (eg, the perpetrator is at work). The messages with the Zoom link will all be deleted by the woman when each week session is over. Additionally, the safety of the woman will be ensured throughout the W-ES.T.EEM intervention. As soon as the safety situation changes, it will be handled promptly so as not to put the woman in danger to the point that the meetings themselves will be interrupted if it is the safest option.

Statistical analyses

Data analyses will be performed using the R software (R Core Team, 2017). First, descriptive statistical analyses will be performed to explore the baseline characteristics of the two groups. Second, preliminary analyses will be conducted to test the assumptions of parametric statistics: if (strong) violations are detected, robust methods or data transformation will be applied. Dropouts and missing questionnaires will be excluded from the study. The independent samples t-test will be used to examine between-group differences (W-ES.T.EEM+TAU vs TAU) in psychological variables at all time-points, with care in observing changes in the scores. The χ^2 statistic will test the association between treatment groups and sociodemographic variables (eg, civil status, employment status), and correlation analysis will be used to test the association between quantitative variables (eg, age, days since last IPV episode, number of psychological interviews). Also, repeated measure MANOVA will be performed to estimate the data average trajectories from baseline to 1-year follow-up. Partial η^2 will be used to quantify the difference between groups across time (global effect size). Each partial η^2 will be interpreted using the following benchmarks null ($p\eta^2<0.003$); small ($p\eta^2$ from 0.003 to 0.039); moderate ($p\eta^2$ from 0.40 to 0.110); and large ($p\eta^2>0.110$). Cohen's *d* will be used to quantify the difference between groups within a single time (independent samples Cohen's *d*) and between times within a single group (paired sample Cohen's *d*). Each Cohen's *d* will be interpreted using the following benchmarks: null ($d<0.20$), small (*d* from 0.20 to 0.49), moderate (*d* from 0.50 to 0.79) and strong ($d>0.80$).

Ethics and dissemination

The study protocol was approved by the Ethics Committee of the University of Padua (protocol no 4300). Consent to participate in the research will be obtained at enrolment. The findings of this study will be presented locally and nationally, and published in peer-reviewed journals.

Patient and public involvement

It was not appropriate or possible to involve patients or the public in the design of our research.

DISCUSSION

To help mitigate the impact of IPV on the physical and mental health of victims, this work aims to describe the W-ES.T.EEM protocol, the first web-based intervention specifically designed for victims of IPV. The protocol

will be implemented with IPV victims recruited from AVCs throughout Italy and is based on the integration of empowerment interventions and DBT.

The online modality was chosen due to current multiple barriers for face-to-face psychological interventions (ie, financial issues, mobility), and it largely acknowledges advantages, including greater flexibility or the possibility of meeting the need of a difficult-to-reach population.[5 57]

Expected results

The results of this RCT will provide additional evidence for the feasibility and effectiveness of web-based interventions based on the integration of empowerment and DBT techniques to improve the emotional health of IPV victims.

They would also suggest promising directions for future research in the field[98] and would contribute to further adaption of the experimental programme.

However, IPV victims may experience difficulties in the use of digital tools at home for safety reasons, and their implementation during social isolation can pose additional challenges (eg, limited privacy or unreliable internet connection).[8 99]

Also, in line with previous studies, drop-out rates could be higher with online interventions compared with face-to-face therapy, and the use of an online intervention could also prevent effective control of confounding variables (eg, environmental factors) that could impact treatment outcomes.[100]

However, the findings of this study will help to detect and address any usability problem, as online interventions, due to their characteristics and format, might be a particularly feasible solution to mitigate the psychological impact of IPV on their victims.

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