

ONLINE PSYCHOEDUCATION FOR DISSOCIATION

Effects of an Online Psychoeducational Program for People with Dissociative Symptoms: A

Randomized Controlled Trial

Authors' accepted version

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Abstract

Purpose: This study evaluated an online psychoeducational program for people with dissociative symptoms. **Methods:** A total of 101 Hong Kong Chinese adults with dissociative symptoms were randomly assigned to the intervention group (n = 51) or the waitlist control group (n = 50). **Results:** The attrition rate was 15.8% at post-intervention. Over 90% participants were satisfied with the program. Within-subjects analyses showed that the intervention group had significant improvements in active coping, cognitive reappraisal, self-efficacy, and dissociative symptoms from baseline to two-month follow-up, while the control group did not have such changes. Between-subjects analyses further showed that the intervention group had greater improvements in cognitive reappraisal than the control group with a medium effect ($\eta^2 = .101$). **Conclusion:** This study contributes to the limited literature on interventions for dissociation. It provides preliminary evidence for an easily-accessible educational intervention for people with dissociative symptoms.

Trial Registration: ClinicalTrials.gov - NCT05519748

Keywords: Dissociation; Dissociative disorders; Psychoeducation; Internet-based intervention;

Trauma

Effects of an Online Psychoeducational Program for People with Dissociative Symptoms: A Randomized Controlled Trial

Dissociation refers to failures in the process of integrating one's psychophysiological experiences (e.g., memories, emotions, identities) (American Psychiatric Association, 2022; Loewenstein et al., 2024; Van der Hart et al., 2006). Examples of dissociative symptoms include depersonalization/derealization, amnesia, intrusions, and identity alteration (Briere et al., 2005; Dell, 2009). Dissociative symptoms are the core features of dissociative disorders (DDs), but these symptoms can also be observed in other psychiatric disorders (Lyssenko et al., 2018). Earlier review suggested that the prevalence of DDs is about 10% in the community (Şar, 2011). The prevalence of dissociative symptoms is 11.2% to 16.6% in nonclinical samples (Fung, Geng, et al., 2023; Kate et al., 2020). Dissociative symptoms are often conceptualized as a response to trauma (Loewenstein, 2018; Van der Hart et al., 2006). Dissociative symptoms are persistent over time (Fung, Chau, Hung, et al., 2023) and are associated with high medical service usage (Gonzalez Vazquez et al., 2017), extensive comorbid symptoms (Hyland et al., 2023), and high levels of social-occupational impairments (Fung, Wong, et al., 2022). Dissociation is also the strongest predictor of multiple suicide attempts in psychiatric patients (Foote et al., 2008).

Despite of the public health significance of dissociative symptoms, little is known about the effectiveness of interventions for dissociation, although there have been many uncontrolled outcome studies and case reports (for a review, see Brand et al., 2009). There are some treatment studies that

evaluated interventions for patients with dissociative symptoms and disorders (Brand et al., 2013; Jepsen et al., 2014), but most of them were not controlled studies. More well-designed evaluation studies have been called for (Fung, Ross, et al., 2022). Recently, one randomized controlled trial (RCT) of psychosocial interventions for people with dissociation evaluated a stabilizing group treatment for patients with complex DDs (N = 59) but they failed to observe either within-subjects or between-subjects effects (Bækkelund et al., 2022). Brand et al. (2025) recently conducted another RCT and found that their online education program significantly improved the outcomes of patients with complex trauma and dissociative symptoms.

Although individual psychotherapy is recommended for mental health problems related to trauma and/or dissociation (e.g., American Psychological Association, 2017; International Society for the Study of Trauma and Dissociation, 2011), there are many challenges in providing individual psychotherapy for these patients. There is a lack of well-trained therapists; individual treatments could be expensive to many people in need; and face-to-face services may encounter more limitations (e.g., during the pandemic). People with dissociation commonly experience barriers to accessing mental health services (Nester et al., 2022). Therefore, online interventions for people with dissociation are currently under development and evaluation (Brand et al., 2025; Brand et al., 2019; Fung, Chan, et al., 2022). In addition, it has been proposed that social workers can play a vital role in supporting people with trauma-related dissociative symptoms and disorders. Key reasons include the facts that people with dissociative symptoms or disorders often require professional psychosocial interventions rather

than simple medical care and that dissociation is linked to social oppression (e.g., betrayal trauma, family violence), necessitating timely social work interventions (Fung et al., 2019). Especially when clinicians specialized in treating dissociation are unavailable, generalist social workers can provide essential support to clients suffering from dissociative symptoms. A key early intervention is psychoeducation, which helps clients stay safe, understand and manage their post-traumatic and dissociative symptoms, and begin collaborating with different dissociated self-states (Fung & Ross, 2024). Dissociation-specific psychoeducation can be easily implemented in social work settings to make early intervention possible and scalable.

This paper reports the results of a RCT that evaluated whether an online psychoeducational program could be helpful for people with dissociative symptoms. The study focused on participants with dissociative symptoms, although trauma exposure was common in this sample. The rationale behind the intervention is that people with trauma and dissociative symptoms usually need to learn healthy coping strategies to cope with triggers and manage their symptoms (Brand et al., 2012; Loewenstein, 2022). Psychoeducation and skills training have been suggested to be core intervention elements (Cloitre et al., 2020; Fisher, 1999). Moreover, recent longitudinal studies suggested that cognitive processes (e.g., self-stigma, experiential avoidance) and self-efficacy (e.g., confidence in symptom management) should be targeted in traumatized/dissociative individuals (Fung, Černis, et al., 2023; Fung, Hung, et al., 2023; Kumpula et al., 2011). Emotion dysregulation also predicts subsequent psychopathology in general (Lincoln et al., 2022). Brand et al. (2019) also reported that

their online educational program improved emotional regulation in patients with DDs. Therefore, our program focused on education, emphasizing the cognitive and coping aspects. It aimed to enable participants to better understand and manage their mental health problems (dissociative symptoms in particular) (Fung, Chan, et al., 2022; Fung & Ross, 2019).

We hypothesized that the program would demonstrate feasibility, as reflected by an acceptable retention rate (>70%), and acceptability, as indicated by high levels of satisfaction by the participants. Moreover, we hypothesized that participants in the intervention group would demonstrate significant improvements in coping skills, emotional regulation, self-efficacy, and dissociative symptoms, while those in the control group would not (within-subjects effects). Furthermore, we hypothesized that the improvements in the intervention group would be greater than those in the control group (between-subjects effects).

Method

Study Design

This RCT used a repeated-measure design to evaluate an online psychoeducational program for people with dissociative symptoms. Assessments were conducted using standardized self-report measures. The study was approved by the institutional review board at the Chinese University of Hong Kong (CREC Ref. No: 2022.220). This trial was registered at ClinicalTrials.gov – NCT05519748.

Participants

This study targeted participants who met the following inclusion criteria: 1) adults aged 18 to 64 living in Hong Kong; 2) scored above the cutoff (i.e., ≥ 20) on a dissociation screening measure (i.e., the Dissociative Experiences Scale-Taxon) (Ross et al., 2002); 3) provided online written and oral informed consent; 4) can understand and communicate in Chinese-Cantonese; and, 5) can access to the Internet. The exclusion criteria included the following: 1) individuals who have a reading disorder, cognitive impairment, dementia, or intellectual disabilities; and 2) individuals who had participated in previous research projects which used the same psychoeducation program studies in this RCT.

To recruit potential participants, we sent the recruitment posters to local service providers and ran a social media advertising campaign from 30 March 2023 to 2 May 2023. The recruitment poster listed out examples of dissociative symptoms. Participants could enjoy a free online program which taught about understanding and managing dissociative symptoms. Participants who completed the entire project were offered one HKD\$100 cash coupon to compensate for their time. Email address and phone number were collected to deliver the psychoeducational materials and send reminders.

After participants registered online and completed the screening (pretest) form, a trained research assistant would contact them if they met all inclusion criteria (including DES-T ≥ 20). A brief phone interview was conducted within 1-2 week to explain the study procedures and collect further background information using a structured interview. Each phone interview took about 10 to 20 minutes to complete. Selected sections of the Chinese version of the Dissociative Disorders Interview Schedule (DDIS) were included in the phone interview. Only participants who participated in the

phone interview were included in the study. The structured interview was conducted to further assess the levels of dissociative symptoms of the participants and ensure the sample validity.

Sample Size Calculation

This RCT aims at examining the preliminary effects of the program. For a pilot trial, a minimum of 30 subjects per group is recommended (Hertzog, 2008). Allowing for a potential attrition rate of 35% during the study as suggested in previous feasibility studies (Fung, Chan, et al., 2022; Fung, Chan, et al., 2020), the total sample size was determined to be 94 (47 subjects per group).

Randomization

Computer-generated block randomization was performed by a research team member who was blind to the screening results. Participants were randomly assigned into the intervention and control arm with an allocation ratio of 1:1 and at the same time, maintaining equal numbers of participants per arm. The random block sizes ranged from two to eight. Allocation concealment was also done by the research team member who was not involved in the interventions and assessments.

Intervention and Procedures

The primary goal of the intervention was to improve participants' ability to cope with intrapersonal and interpersonal challenges, including emotional problems and interpersonal conflicts. The intervention was a 16-session online psychoeducational program. The first 10 sessions of the program were based on an existing psychoeducation package developed by leading scholars in the field of dissociation (Fung & Ross, 2019), and the package has been used in previous feasibility

studies (Fung, Chan, et al., 2022; Fung, Chan, et al., 2020). With a theme of “be a teammate with yourself,” this part included contents related to the impacts of trauma and stress, post-traumatic and dissociative symptoms, healthy coping strategies, integration of the personality, and intrapersonal and interpersonal problems. The contents were mainly text-based, with some graphic illustrations. The last 6 sessions of the program included educational videos and articles on nonviolent communication (NVC). NVC is a particular approach to communication that emphasizes: observing without judgment, identifying the feelings, understanding the needs behind the feelings, and making requests without making demands (Museux et al., 2016; Rosenberg & Chopra, 2015). The NVC-related contents were co-developed by a certified NVC practitioner and our team. NVC training was included because many people with trauma and dissociation would suffer from conflicts with themselves as well as with other people, and therefore interpersonal skills training has been emphasized as an important element in trauma interventions (Cheung et al., 2022; Cloitre et al., 2020; Fung, Chau, Yuan, et al., 2023). The psychoeducational materials were fully standardized. We also asked participants to indicate their attendance using online forms after completing each session. Table 1 shows the contents of each session. The psychoeducational materials were sent to participants in the intervention group every four days (4 days x 16 sessions) through emails. The research assistant also regularly sent reminders through WhatsApp. Participants in the waitlist control group received the intervention materials after the entire project.

Measures and Outcomes

Brief phone interviews were conducted before randomization to solicit participants' background information regarding trauma histories and dissociative features. To assess trauma histories, 12 items from the Chinese version of the Brief Betrayal Trauma Survey (Fung, Chien, et al., 2023; Fung et al., 2025; Goldberg & Freyd, 2006) were used to examine lifetime traumatic events in the baseline screening survey. To assess dissociative features and probable DSM-5 DDs through structured interviews, Section VIII to Section XVI (except for Section X) of the Chinese version of the DDIS (Ross & Ellason, 2005; Ross et al., 1989; Wu et al., 2022) were used in the phone interview. The DDIS is a fully standardized instrument which requires minimal training and clinical judgment and it has well-established reliability and validity for assessing DDs (Ross et al., 2002; Ross et al., 1989).

To evaluate the preliminary effects of the intervention, several outcomes were measured. The primary outcome was coping, and the secondary outcomes included emotional regulation, self-efficacy, and dissociative symptoms. These outcomes were measured at baseline (T0), immediately post-intervention (T1), and two-month follow-up (T2).

Coping was measured using the Brief Coping Orientation to Problems Experienced inventory (Brief-COPE). The Brief-COPE is a 28-item measure of different types of coping styles (Carver, 1997). The Brief-COPE had good internal consistency ($\alpha = .72$ to $.84$), test-retest reliability ($r = .58$ to $.72$) and construct validity (Cooper et al., 2008; Monzani et al., 2015). The Chinese version of the Brief-COPE was also reported to have good psychometric properties with a three-factor structure (Tang et al., 2021). Higher scores indicate more frequent use of the coping strategies.

Emotional regulation was measured using the Emotion Regulation Questionnaire (ERQ). The ERQ is a 10-item measure of two forms of emotion regulation, namely: cognitive reappraisal and expressive suppression (Gross & John, 2003). Recent studies showed that the two-factor structure can be replicated in different samples and that the ERQ had good to excellent reliability and validity (Preece et al., 2019). The Chinese version of the ERQ has also been validated and it also had the two-factor structure (Li & Wu, 2020). Higher scores indicate more frequent use of the specific emotional regulation strategies.

Self-efficacy was measured using the General Self-Efficacy Scale (GSES). The GSES is a 10-item measure assessing the levels of self-beliefs to cope with adversities in different life situations (Zhang & Schwarzer, 1995). Cross-cultural studies have confirmed its reliability, validity, and single-factor structure across 25 countries (Scholz et al., 2002). The Chinese version of the GSES also demonstrated excellent internal consistency ($\alpha = .91$) and good construct validity (Zhang & Schwarzer, 1995).

Dissociative symptoms were measured using the Dissociative Experiences Scale-Taxon (DES-T). The DES-T is an 8-item subscale of the original 28-item DES (Carlson & Putnam, 1993) that can be used to screen for pathological dissociative symptoms (Waller & Ross, 1997). In a blind assessment study, the DES-T (with a cutoff of 20) was found to have good agreement (Cohen's kappa = .76 to .81) with structured diagnostic interviews in detecting severe DDs (Ross et al., 2002). The Chinese version of the DES-T also had excellent internal consistency ($\alpha = .92$), was highly correlated

with other dissociation measures ($r = .626$ to $.653$), and could detect DDs with a sensitivity of 93.8% and a specificity of 74.1% when a cutoff score of 20 was used (Fung et al., 2018).

In addition, we also collected feedback from the participants upon the completion of the intervention using the Client Satisfaction Questionnaire adapted to Internet-based interventions (CSQ-I), which was an 8-item self-report questionnaire measuring the levels of satisfaction of online interventions (Boß et al., 2016). The Chinese version of the CSQ-I has been used in a previous study and it was reported to have excellent internal consistency ($\alpha = .945$) (Fung, Chan, et al., 2022). Three additional questions were also included in the feedback form.

Statistical Analyses

SPSS 22.0 was used for statistical analysis. We conducted descriptive analysis of the sample characteristics as well as the feedback from the participants. We examined baseline differences between participants in the intervention group and the control group using independent sample t-tests for continuous variables and chi-square tests for categorical variables.

To evaluate the program, we followed the analytic approach of recent pilot RCTs (e.g., Mou et al., 2022). In particular, the intention-to-treat principle was employed to examine the outcomes, and missing data were handled using the last observation carried forward method. To examine within-subjects differences in the outcome variables over three timepoints, one-way repeated-measure ANOVA was conducted. To examine between-subjects differences (i.e., group x time interaction), we further conducted two-way repeated-measure ANOVA. We also provided information on the effect

size - partial eta squared (η^2). A value of ≥ 0.01 represents a small effect, ≥ 0.06 represents a medium effect, and ≥ 0.14 represents a large effect (Cohen, 1988).

To evaluate the effects of the program, we tested the following hypotheses:

1. Participants in the treatment group would improve statistically significantly more after the intervention than the participants in the waiting list group on the measure of coping (Brief-COPE).
2. Participants in the treatment group would improve statistically significantly more after the intervention than the participants in the waiting list group on the measure of emotion regulation (ERQ).
3. Participants in the treatment group would improve statistically significantly more after the intervention than the participants in the waiting list group on the measure of self-efficacy (GSE).
4. Participants in the treatment group would improve statistically significantly more after the intervention than the participants in the waiting list group on the measure of dissociative symptoms (DES-T).

Results

Sample Characteristics

A total of 101 participants were included in this study. No differences were found between the intervention group and the control group in all baseline variables (for sample characteristics and

baseline differences, see Table 2). Most participants (89.1%) reported at least one lifetime traumatic event, and participants reported an average of 3.68 ($SD = 2.58$) types of traumatic events. The mean DES-T score was 45.22 ($SD = 14.60$), which was far above the suggested cutoff scores (20 or 25) for screening for DDs (Fung et al., 2018; Ross et al., 2002). In addition, participants reported an average of 5.11 dissociative features ($SD = 3.15$) on the DDIS. This also indicated a high level of dissociative pathology as it was far above the mean scores reported in nonpsychiatric Chinese samples in other studies, such as 1.22 ($SD = 1.83$) in college students (Fung, Ling, et al., 2020), 1.76 ($SD = 2.19$) in high school students (Fung, Geng, et al., 2023), and 1.05 ($SD = 1.54$) in community health service users (Fung, Wong, et al., 2022).

Feasibility and Acceptability

As shown in Figure 1, among 101 participants included in the trial, 85 (84.2%) completed posttest, and 82 (81.2%) completed the follow-up assessment. Thus, the overall attrition rate was 15.8% at post-intervention. Of the 51 participants in the intervention group, 92.16% completed at least 5 sessions, and 78.4% completed at least 10 sessions. Moreover, the program received positive feedback from participants who completed the feedback form ($n = 38$) (see Table 3). For example, 81.5% agreed or strongly agreed that the program helped them deal with their problems more effectively, and 92.1% agreed or strongly agreed that they were satisfied with the program.

Preliminary Effects

The baseline (T0), posttest (T1), and follow-up (T2) outcome scores of the participants are

reported in Table 4.

In terms of Hypothesis 1, one-way ANOVA showed that, from baseline (T0) to follow-up (T2), participants in the intervention group had significant increases in active coping ($F = 3.840$, $p < .05$, $\eta^2 = .071$, medium effect), while the control group did not have such statistically significant changes ($p < .05$). No statistically significant changes in dysfunctional coping and distraction coping were observed in both groups ($p < .05$). Further analysis using two-way ANOVA did not reveal statistically significant between-subjects effects in any coping subscales ($p < .05$).

In terms of Hypothesis 2, one-way ANOVA showed that, from baseline (T0) to follow-up (T2), participants in the intervention group had significant increases in cognitive reappraisal ($F = 12.836$, $p < .001$, $\eta^2 = .204$, large effect), while the control group did not have such statistically significant changes ($p < .05$). No statistically significant changes in expressive suppression were observed in both groups ($p < .05$). Further analysis using two-way ANOVA showed that there was statistically significant group x time interaction in cognitive reappraisal, $F = 11.107$, $p < .001$, $\eta^2 = .101$. In other words, participants in the intervention group reported a significantly greater increase in cognitive reappraisal, compared with those in the waitlist control group, with a medium effect size. However, the between-subjects effects in expressive suppression were not statistically significant.

In terms of Hypothesis 3, one-way ANOVA showed that, from baseline (T0) to follow-up (T2), participants in the intervention group had significant increases in self-efficacy ($F = 7.356$, $p < .01$, $\eta^2 = .128$, medium effect), while the control group did not have such statistically significant changes (p

< .05). Further analysis using two-way ANOVA did not reveal statistically significant between-subjects effects in self-efficacy. Nevertheless, the between-group difference for self-efficacy was close to statistical significance ($F = 2.789$, $p = .068$), with a small effect size ($\eta^2 = .027$).

Finally, in terms of Hypothesis 4, one-way ANOVA showed that, from baseline (T0) to follow-up (T2), participants in the intervention group had significant decreases in dissociative symptoms ($F = 4.816$, $p < .05$, $\eta^2 = .085$, medium effect), while the control group did not have such statistically significant changes ($p < .05$). Further analysis using two-way ANOVA, however, did not reveal statistically significant between-subjects effects in dissociative symptoms ($p < .05$).

Discussion And Applications to Practice

This RCT contributes to the limited treatment literature on dissociation. We provide evidence for a novel, easily-accessible, low-cost intervention for people with dissociative symptoms. We found that the online psychoeducational program was feasible (attrition rate was 15.8% at post-intervention) and acceptable (as indicated by the high levels of satisfaction). Within-subjects analyses showed that the intervention group had significant improvements in active coping ($\eta^2 = .071$, medium effect), cognitive reappraisal ($\eta^2 = .204$, large effect), self-efficacy ($\eta^2 = .128$, medium effect) and dissociative symptoms ($\eta^2 = .085$, medium effect) from baseline to two-month follow-up, while the control group did not have such changes. Between-subjects analyses further showed that the intervention group had greater improvements in cognitive reappraisal than the control group ($F =$

11.107, $p < .001$, $\eta^2 = .101$, medium effect).

First of all, the feasibility and acceptability of this online program in this study should be noted. In the previous feasibility single-group studies using part of the same online psychoeducation program, the attrition rates were 36.3% to 37.5% at post-intervention (Fung, Chan, et al., 2022; Fung, Chan, et al., 2020). Moreover, a review of 17 information and communications technology-based (ICT-based) mental health intervention studies found that the attrition rates for these interventions varied significantly, ranging from 8.9% to 86.39% (with a mean of 43%) (Meyerowitz-Katz et al., 2020). We believe that the favorable retention rate in this study can be attributed, at least in part, to the active involvement of a trained research assistant who consistently sent mobile text reminders to the participants. Such individualized phone-based reminders were not present in previous feasibility studies, which solely relied on mass email reminders.

Our results, along with the recent positive results reported by Brand et al. (2025), suggest that online psychoeducation program is beneficial to individuals with dissociative symptoms. As a first-step educational intervention designed to supplement the existing practice in the management of dissociative symptoms/disorders, we do not expect that our program could substantially reduce the clinical symptoms of people with dissociative symptoms. Thus, the primary goal of the program was to improve their knowledge and skills to cope with the symptoms, deal with life challenges, and manage their emotions. As noted, these skills are essential for individuals to improve their dissociative symptoms and alleviate the impacts of these symptoms on their functioning and wellbeing (Cloitre et

al., 2020; Fisher, 1999). Our findings indicate that the program exhibited potential benefits in enhancing active coping, promoting cognitive reappraisal as a mechanism for emotional regulation, strengthening self-efficacy, and reducing dissociative symptoms, as demonstrated by within-subjects analyses. Notably, evidence from between-subjects analyses further supports the program's effects in improving cognitive reappraisal in people with dissociative symptoms. We also observed non-significant greater improvements in active coping, self-efficacy and dissociative symptoms in the intervention group, although our study may lack sufficient statistical power to detect the between-subjects effects. For instance, a total sample size of 154 would be required in order to detect the between-subjects differences for active coping observed in this study, given a 5% alpha level and 80% power. After all, these preliminary results support the use of the online program as a first-step educational intervention for people with dissociative symptoms who are in the early stages of recovery, especially when they could not access specialized treatment services. The program may also serve as a valuable supplementary service within both general mental health settings and specialized mental health service settings. The relatively small effects of the intervention should be noted, and it implies that sole psychoeducation, although beneficial, is never enough for clients with severe dissociative symptoms/disorders. Psychoeducation cannot replace standard psychological and medical interventions too. For example, dissociation is also related to oppression and structural determinants of health (e.g., systemic trauma, poverty, discrimination, or marginalization) (Şar et al., 2013); these also require social work interventions. While the limitations of the program (e.g., only educational in

nature, cannot replace clinical treatment) should be acknowledged, this low-cost program offers individuals with dissociative symptoms an opportunity to acquire essential knowledge for understanding and managing their dissociation. This is important considering the lack of dissociation-informed services in many places and that people with dissociative symptoms commonly experience barriers to accessing mental health services (Nester et al., 2022). Considering the prevalence and clinical significance of dissociative symptoms and disorders in health and social service settings, the online psychoeducation program could become a useful early intervention for those who cannot yet receive specialized psychotherapies. Social workers and other psychosocial service providers can make use of this well-accepted and potentially effective online program to help clients with dissociative symptoms to improve symptom management. The program is scalable too, and therefore social service providers can deliver the program to many clients in need at the same time. For instance, once a client screens positive for dissociative symptoms, they could be offered the chance to receive the psychoeducation materials while awaiting specialized treatments. Meanwhile, social workers and other mental health practitioners (e.g., psychiatric nurses) can provide additional support and personalized feedback to enhance their learning, encouraging them to apply those coping strategies to cope with stressors, triggers, and dissociative symptoms effectively.

This study has the strengths of using a RCT design, conducting structured interviews to collect additional information and ensuring the sample validity, achieving a good retention rate with a reasonably large sample size, and utilizing a fully standardized intervention program (which could

ensure intervention fidelity). However, there are also some limitations. First, the sample was not representative of all people with dissociative symptoms. In particular, we only included Hong Kong Chinese adults in this trial. The results may not be generalizable to those in other sociocultural contexts. Individuals with lower education levels or mental health awareness might encounter more challenges when receiving the psychoeducation interventions. Second, most participants were female. Third, we evaluated the outcomes using self-report measures. Data from different sources (e.g., report by clinicians) would enhance our understanding of the intervention's potential benefits. Future studies should include interview-based or clinician-reported outcome measures to evaluate the effects of the interventions. Fourth, we did not gather data regarding the amount of time individuals spent reading the materials. Fifth, we did not measure other important outcomes, such as post-traumatic symptoms. Finally, although we used both self-report and structured interview data to assess the levels of dissociative symptoms, we could not confirm the diagnostic status of the participants and how many of them actually had a DD. The absence of formal clinical diagnoses may also limit the generalizability of the findings, although it is commonly recognized that DDs are usually unrecognized in clinical settings where clinicians are not familiar with dissociation (Fung & Lao, 2017; Xiao et al., 2006). Future studies should further evaluate the online program using a more representative sample, employing diagnostic interviews to confirm the diagnostic status, and incorporating various data sources to measure the outcomes.

It is important to note that this is one of the first RCTs that evaluate interventions for people with

dissociative symptoms in the literature. Consistent with the recent findings reported by Brand et al.

(2025), we found that online psychoeducation may be beneficial to people with dissociative

symptoms. More importantly, our fully self-administered program does not require the involvement of

a therapist. Generalist mental health service providers, such as psychiatric nurses and social workers,

can utilize this low-cost program to provide easily-accessible, entry-level intervention for people with

dissociative symptoms in the community.

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ONLINE PSYCHOEDUCATION FOR DISSOCIATION

Table 1.*Contents of the online psychoeducational program*

| Session | Topic |
|---------|--|
| 1 | Introduction & Safety is the primary consideration |
| 2 | Basic self-help skills |
| 3 | Trauma affects us in many ways, but is reversible |
| 4 | Common reactions to trauma and stress |
| 5 | Trauma-related mental disorders: What do these labels mean? |
| 6 | Irrational thoughts |
| 7 | Trauma recovery and integration of the personality |
| 8 | Common questions about trauma and dissociation |
| 9 | Coping with dissociative reactions |
| 10 | Interpersonal issues in trauma and recovery & Living well during and after trauma recovery |
| 11 | NVC skills training 1: Understanding our needs |
| 12 | NVC skills training 2: Self-dialogue from different perspectives |
| 13 | NVC skills training 3: Gratitude and appreciation |
| 14 | NVC skills training 4: Honest expression |
| 15 | NVC skills training 5: Making a genuine request |
| 16 | NVC skills training 6: Listening |

Notes:

NVC = Nonviolent communication

ONLINE PSYCHOEDUCATION FOR DISSOCIATION

Table 2.*Sample characteristics and baseline differences between the intervention group and the control group*

| Variables | Possible range | Intervention group (n = 51) | | Control group (n = 50) | | Statistics | |
|--|----------------|-----------------------------|-------|------------------------|-------|------------|------|
| | | Mean | SD | Mean | SD | t | p |
| Age | 18 to 64 | 36.27 | 10.84 | 34.02 | 10.86 | 1.044 | .299 |
| Number of types of lifetime trauma | 0 to 12 | 3.94 | 2.73 | 3.42 | 2.41 | 1.017 | .312 |
| Dissociative features as assessed by structured interview | 0 to 16 | 5.02 | 3.08 | 5.20 | 3.25 | -0.287 | .775 |
| Dissociative symptoms (DES-T) | 0 to 100 | 46.45 | 14.16 | 43.98 | 15.09 | 0.849 | .398 |
| Active coping (Brief-COPE) | 14 to 56 | 37.94 | 7.34 | 37.76 | 6.65 | 0.130 | .897 |
| Dysfunctional coping (Brief-COPE) | 10 to 40 | 27.25 | 6.05 | 27.14 | 5.10 | 0.103 | .918 |
| Distraction coping (Brief-COPE) | 4 to 16 | 10.14 | 2.18 | 10.30 | 2.43 | -0.354 | .724 |
| Cognitive reappraisal (ERQ) | 6 to 24 | 15.43 | 3.72 | 15.92 | 3.36 | -0.693 | .490 |
| Expressive suppression (ERQ) | 4 to 16 | 11.22 | 2.12 | 11.40 | 2.89 | -0.365 | .716 |
| Self-efficacy (GSE) | 10 to 40 | 21.98 | 6.46 | 22.28 | 6.04 | -0.241 | .810 |
| Variables | | % | | % | | χ^2 | |
| Gender (female) | / | 82.4% | | 78.0% | | 0.301 | .583 |
| Marriage status (married or common-law) | / | 35.3% | | 20.0% | | 2.947 | .086 |
| Receiving psychiatric medication treatment (past 3 months) | / | 35.3% | | 44.0% | | 0.800 | .371 |
| Receiving counselling or psychotherapy (past 3 months) | / | 33.3% | | 38.0% | | 0.240 | .624 |
| Any probable DD as assessed by structured interview | / | 74.5% | | 56.0% | | 3.820 | .051 |
| Probable DID as assessed by structured interview | / | 11.8% | | 10.0% | | 0.081 | .776 |
| Any prior DD diagnosis (self-report) | / | 11.8% | | 12.0% | | 0.001 | .971 |

Notes:

DES-T = The Dissociative Experiences Scale-Taxon; Brief-COPE: The Brief Coping Orientation to Problems Experienced Inventory; ERQ = The Emotion Regulation Questionnaire; GSE = The General Self-Efficacy Scale; DD = dissociative disorders; DID = dissociative identity disorder

ONLINE PSYCHOEDUCATION FOR DISSOCIATION

Table 3.*Feedback from the participants in the intervention group (N = 38)*

| The Client Satisfaction Questionnaire adapted to Internet-based interventions (CSQ-I) | Does not apply to me (%) | Does rather not apply to me (%) | Does partly apply to me (%) | Does totally apply to me (%) |
|---|--------------------------|---------------------------------|-----------------------------|------------------------------|
| 1. The program I attended was of high quality | 0 | 5.3 | 50.0 | 44.7 |
| 2. I received the kind of program I wanted | 0 | 10.5 | 42.1 | 47.4 |
| 3. The program has met my needs | 0 | 15.8 | 52.6 | 31.6 |
| 4. I would recommend this program to a friend, if he or she were in need of similar help | 5.3 | 2.6 | 47.4 | 44.7 |
| 5. I am satisfied with the amount of help I received through the program | 0 | 7.9 | 50.0 | 42.1 |
| 6. The program helped me deal with my problems more effectively | 0 | 18.4 | 52.6 | 28.9 |
| 7. In an overall, general sense, I am satisfied with the program | 0 | 7.9 | 57.9 | 34.2 |
| 8. I would come back to such a program if I were to seek help again | 0 | 13.2 | 36.8 | 50.0 |
| Overall feedback | Strongly disagree (%) | Disagree (%) | Agree (%) | Strongly agree (%) |
| 1. Do you think the online psychoeducational program can help you understand your conditions? | 0 | 13.2 | 47.4 | 39.5 |
| 2. Do you think the program can help you manage your conditions? | 2.6 | 28.9 | 44.7 | 23.7 |
| 3. Do you think the program can help you remain hopeful for recovery? | 0 | 26.3 | 42.1 | 31.6 |

ONLINE PSYCHOEDUCATION FOR DISSOCIATION

Table 4.*Baseline (T0), posttest (T1), and follow-up (T2) scores of the participants in the trial*

| | Intervention (N = 51) | | | Control (N = 50) | | Within-subjects analyses (One-way ANOVA; T0 to T2) | | Between-subjects analyses (Two-way ANOVA; Interaction effect) | |
|---|-----------------------|-------|-------|------------------|-------|---|------------------------------|--|----------|
| Outcomes | Time | Mean | SD | Mean | SD | Intervention | Control | F | η^2 |
| Active coping [#] | T1 | 37.94 | 7.34 | 37.76 | 6.65 | F = 3.840* η^2 = .071 | F = 0.126 η^2 = .003 | 2.063 | .020 |
| | T2 | 39.25 | 6.35 | 38.02 | 7.76 | | | | |
| | T3 | 40.14 | 7.48 | 37.60 | 7.96 | | | | |
| Dysfunctional coping [#] | T1 | 27.25 | 6.05 | 27.14 | 5.10 | F = 3.218 η^2 = .060 | F = 2.119 η^2 = .041 | 1.135 | .011 |
| | T2 | 26.33 | 5.04 | 25.82 | 5.46 | | | | |
| | T3 | 25.55 | 5.86 | 26.40 | 5.35 | | | | |
| Distraction coping [#] | T1 | 10.14 | 2.18 | 10.30 | 2.43 | F = 1.484 η^2 = .029 | F = 2.772 η^2 = .054 | 0.442 | .004 |
| | T2 | 10.61 | 2.13 | 10.68 | 2.36 | | | | |
| | T3 | 10.55 | 2.56 | 11.00 | 2.28 | | | | |
| Emotion regulation: Cognitive reappraisal | T1 | 15.43 | 3.72 | 15.92 | 3.36 | F = 12.836*** η^2 = .204 | F = 1.533 η^2 = .030 | 11.107*** | .101 |
| | T2 | 17.12 | 3.35 | 15.14 | 3.81 | | | | |
| | T3 | 17.69 | 3.41 | 15.30 | 3.92 | | | | |
| Emotion regulation: Expressive suppression | T1 | 11.22 | 2.12 | 11.40 | 2.89 | F = 1.786 η^2 = .034 | F = 0.986 η^2 = .020 | 0.172 | .002 |
| | T2 | 11.02 | 1.88 | 11.06 | 2.63 | | | | |
| | T3 | 10.63 | 2.00 | 10.94 | 2.68 | | | | |
| Self-efficacy | T1 | 21.98 | 6.46 | 22.28 | 6.04 | F = 7.356** η^2 = .128 | F = 0.917 η^2 = .019 | 2.789 | .027 |
| | T2 | 24.25 | 6.40 | 23.24 | 6.80 | | | | |
| | T3 | 24.75 | 6.06 | 22.58 | 6.19 | | | | |
| Dissociative symptoms | T1 | 46.45 | 14.16 | 43.98 | 15.09 | F = 4.816* η^2 = .085 | F = 2.961 η^2 = .057 | 0.297 | .003 |
| | T2 | 42.23 | 18.30 | 42.15 | 17.99 | | | | |
| | T3 | 39.71 | 21.47 | 38.73 | 20.14 | | | | |

Notes

* $p < .05$ ** $p < .01$ *** $p < .001$; # = Primary outcome

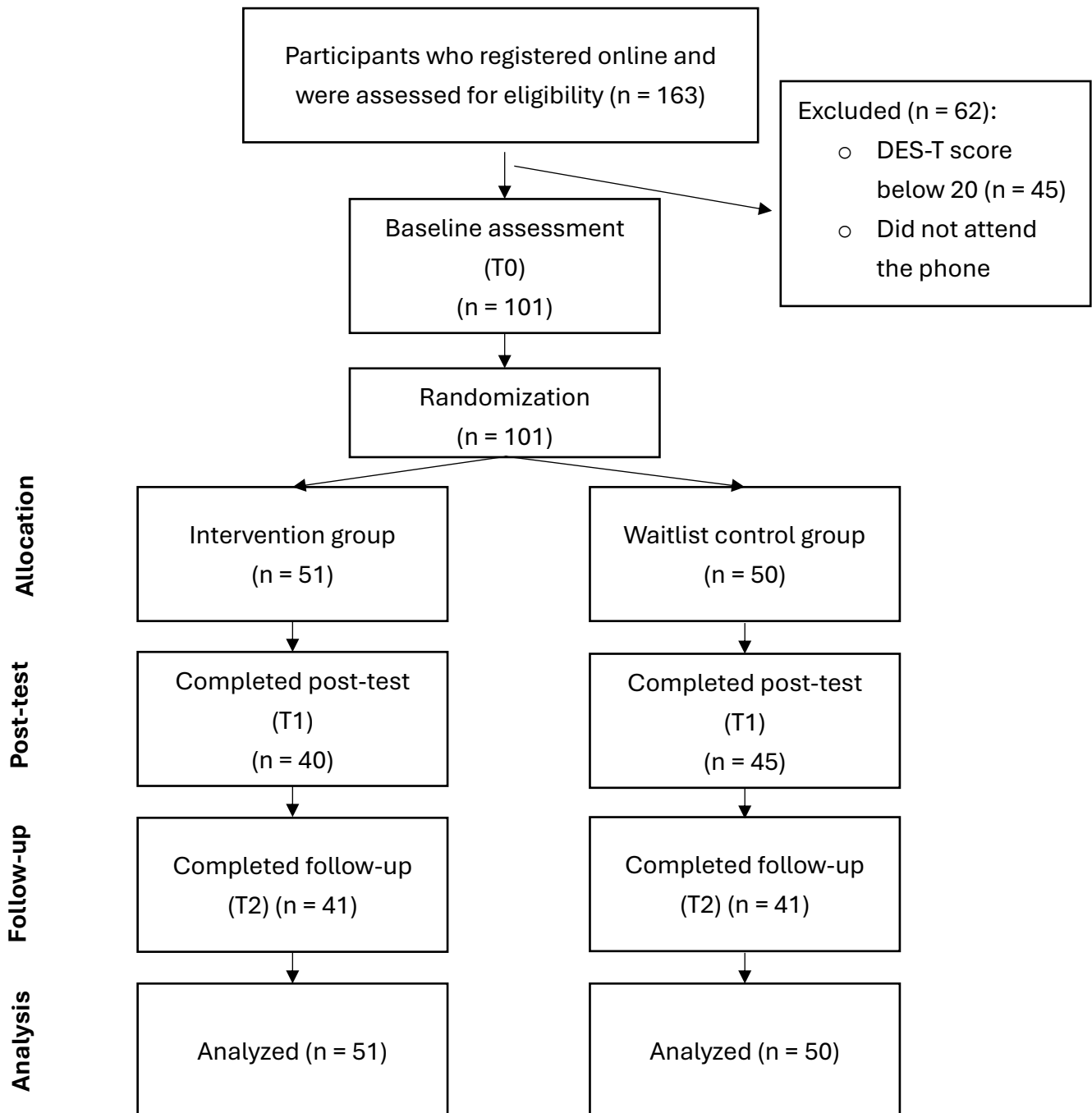


Figure 1. CONSORT flow diagram of the trial