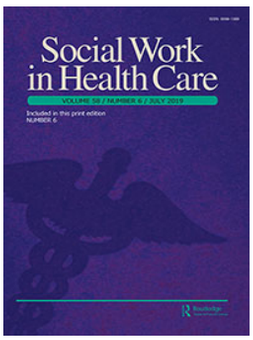

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# A preliminary study of the clinical differences between dissociative and nondissociative depression in Hong Kong: implications for mental health practice

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**ABSTRACT**

Depression is a serious public health issue, but not all patients with depression respond well to pharmaceutical treatments. Some scholars suggested that dissociation could be a marker indicating the types of patients with depression that may benefit more from psychosocial interventions than from pharmaceutical treatments. This study explored the possibility to differentiate dissociative depression and nondissociative depression in a clinical sample ($N = 68$) in the Chinese context, and discusses the potential implications for treatment considerations. Compared with the nondissociative group, the dissociative group reported higher occurrences of psychosocial etiological risk factors (e.g., childhood physical abuse, lack of help from family) and psychosocial-related symptoms (e.g., unstable relations, fear of abandonment, trauma-related flashbacks, somatization symptoms). Our initial findings revealed that patients with dissociative depression appeared to have distinct clinical features and might require more psychosocial interventions. Implications for health care research and practice are discussed.

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Depression; major depressive disorder; dissociative depression; pathological dissociation; dissociative disorders; mental health

Depression is a major leading cause of disability in the world (Friedrich, 2017) and about 4.4% of the world population are estimated to suffer from depression (World Health Organization, 2017). While there have been many medications developed to treat depression, some patients with depression do not respond well to such pharmaceutical treatments. Walsh, Seidman, Sysko, and Gould (2002) found that about 50% patients with depression in 75 randomized controlled trials did not respond to antidepressants. Kennedy, McIntyre, Fallu, and Lam (2002) reviewed previous clinical trials and concluded that "only 25%–35% of patients (with depression who received antidepressant treatment) experience full remission" (p. 270). Some patients also reported worse symptoms or adverse side-effects after pharmaceutical treatments (Khawam, Laurencic, & Malone, 2006; Papakostas, 2008).

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There are well-established studies showing that some psychiatric patients may benefit more from psychosocial interventions than from pharmaceutical treatments. For example, treatment for patients with posttraumatic stress disorder (PTSD) (see Foa, Keane, Friedman, & Cohen, 2008), complex PTSD (see Cloitre et al., 2012), borderline personality disorder (BPD) (see Oldham, 2005) and dissociative disorders (DDs) (Ross, 1997; Van der Hart, Nijenhuis, & Steele, 2006) have repeatedly been advocated as producing better outcome with psychosocial interventions with some empirical support (e.g., Brand, Classen, McNary, & Zaveri, 2009; Goodman & Siever, 2012; Mahoney, Karatzias, & Hutton, 2019). Although the biopsychosocial model is being emphasized, the mental health field tends to adopt pharmaceutical treatments more often than psychosocial interventions (e.g., psychotherapy) (Marcus & Olfson, 2010; Olfson et al., 2002). Scholars have been seeking insights to inform an appropriate use of pharmaceutical and psychosocial treatments. Since patients with depression appear to be a heterogeneous group (Goldberg, 2011), in which some patients respond better to medications while some patients respond better to psychosocial interventions, some scholars started looking for more effective means to differentiate which types of depression patients may especially need psychosocial treatments. *Dissociation* is then introduced to be a possible indicator of those depression patients who may benefit more from psychosocial interventions than from pharmaceutical treatments (Şar, 2011, 2014, 2015). Şar (2011) suggested that dissociative depression may be a common cause of "treatment-resistant" depression; these patients have encountered lifelong adverse experiences and therefore they are more likely to respond to psychological interventions rather than to medications.

Dissociation refers to a failure in the process of integrating certain biopsychosocial processes or experiences (e.g., feelings, memories, emotions, motor functions) (Ross, 2007; Van der Hart et al., 2006). The level of dissociation has been well operationalized in the field and can be measured with reliable and valid instruments (see Ross, 1997). Dissociation is widely conceptualized as a key concept in understanding human responses to adverse psychosocial experiences (e.g., childhood trauma) (Putnam, 1985; Van der Hart et al., 2006).

The relationship between dissociation and depression and the role of dissociation in patients with depression have been of interest in the field, and these require further investigation. Over 80% of patients with dissociative identity disorder (DID) had a history of major depressive episode (Ross et al., 1990; Şar, Yargic, & Tutkun, 1996). A general population study showed that participants with depression were more likely to exhibit pathological dissociation than participants without depression (Maaranen et al., 2005). Moreover, Nijenhuis et al. (2003) found that dissociation was associated with symptoms of anxiety and depression. Considering the

relationship between dissociation and depression and the common co-occurrence of DDs and depressive disorders, Şar (2011) proposed the term "dissociative depression" to describe the group of patients with depression who have a high level of dissociation. It was found that around 40% of women with depression had a lifetime diagnosis of DD in a general population study, and that individuals with dissociative depression were significantly younger and had various differences in clinical features (e.g., BPD symptoms, Schneiderian first-rank symptoms) compared with those individuals with nondissociative depression (Şar, 2011, 2014). Patients with dissociative depression may tend to be classified as treatment-resistant as they usually do not respond well to medications (Şar, 2015).

Taken together, a better understanding of different subgroups of patients with depression may help to make better treatment designs, which would affect mental health patients' well-being. This preliminary study aimed to follow up on the observation about dissociative depression (Şar, 2011, 2014, 2015), and explore whether it is possible to differentiate dissociative and nondissociative depression in a clinical sample in Hong Kong, and discuss the potential implications for treatment considerations. To the best of our knowledge, this is the first study focusing on dissociation in patients with depression in the Chinese context.

## Methods

### *Participants*

As part of a research project (see Fung, Choi, Chan, & Ross, 2018) approved by the Hong Kong Polytechnic University (PolyU) Research Committee, we used online channels (e.g., Facebook, Blogger, mental health groups and forums) to recruit Hong Kong adults who had a clinical diagnosis of depression to complete an online survey. Online methods are promising and cost-effective for health research purposes and can facilitate recruitment and data collection process (Chan, 2013; Chan & Holosko, 2016, 2018). While we stated that we only recruited participants with a history of depression diagnosis and without any other psychiatric diagnosis in the recruitment message, many participants (66.2%) reported comorbid diagnoses. During the period from June to October 2017, 79 participants completed the online survey. Formal informed consent was also obtained online. Participants were excluded from analysis in this study if their diagnoses were not made by a psychiatrist or a clinical psychologist. A total of $N = 68$ Hong Kong Chinese adult participants with clinical depression met the criteria and were included for analysis in this study.

### Measures

Participants completed the online survey in a secured system (i.e., the MySurvey system of the PolyU). The online survey included the following measures:

*The Dissociative Experiences Scale-Taxon (DES-T)* is an 8-item scale which primarily assesses the level of pathological psychoform dissociation (Waller, Putnam, & Carlson, 1996; Waller & Ross, 1997). The DES-T is originally a subscale of the DES, which is the most widely-used self-report dissociation measure with good reliability and validity (Bernstein & Putnam, 1986; Ross, 1997). Participants need to rate each item on a 11-point scale to indicate what percentage of the time a given experience happens to them (0% to 100%). For example, "some people have the experience of finding new things among their belongings that they do not remember buying. Select a number to show what percentage of the time this happens to you." A cutoff score of 20 was recommended for detecting pathological dissociation (Waller & Ross, 1997). The Hong Kong Chinese version of the DES-T (HKC-DES-T) has established psychometric properties (Chan, Fung, Choi, & Ross, 2017; Fung et al., 2018). The DES-T has good internal consistency in the present sample (Cronbach's alpha = .735).

*The 5-item Somatoform Dissociation Questionnaire (SDQ-5)* is a brief version of the original 20-item SDQ (SDQ-20), which is a well-established measure for assessing somatization symptoms, or medically unexplained physical symptoms (Nijenhuis, Spinhoven, van Dyck, Van der Hart, & Vanderlinden, 1997). The SDQ assesses how often the participant has had a given physical symptom or body experience (e.g., *"My body, or a part of it, is insensitive to pain"*) in the past year, using a 5-point scale (1 = this applies to me NOT AT ALL" to "5 = this applies to me EXTREMELY). If any known physical cause of a symptom was reported, the given item scored only "1". Nijenhuis (2010) recommended a cutoff score of 8 to screen for DDs. The Chinese version of the SDQ-5 has been used in previous studies (e.g., Fung, Ho, & Ross, 2018; Fung, Ling, Ross, Tse, & Liu, in press; Fung, Ross, Yu, & Lau, in press) and was found to have acceptable psychometric properties recently (Fung et al., 2018). The SDQ-5 has satisfactory internal consistency in the present sample (Cronbach's alpha = .683).

*The Self-Report Dissociative Disorder Interview Schedule (SR-DDIS) (DSM-5 Version)* is a self-administered version of the original DDIS (Ross, 1997; Ross & Browning, 2017; Ross et al., 1989). The DDIS is a structured diagnostic interview for the DSM-5 DDs. It also assesses childhood physical and sexual abuse, major depressive disorder/episode, BPD, Schneiderian first-rank symptoms (hereinafter called "Schneiderian symptoms") (e.g., auditory hallucinations, feelings as influenced by external agents), and some trauma-related symptoms (e.g., flashbacks, feeling of unreality, amnesia) (in the

section for secondary features of dissociative identity disorder [DID]). The Chinese version of the SR-DDIS could discriminate between research participants with and without a clinical diagnosis of DD (Fung et al., 2018). In the present study, several sections and items were adopted from the SR-DDIS.

*The Multidimensional Scale of Perceived Social Support – Family Subscale (MSPSS-FS)* is a 4-item subscale of the 12-item MSPSS (Zimet, Powell, Farley, Werkman, & Berkoff, 1990). This 4-item subscale particularly measures the level of perceived social support from family. The Chinese version of the MSPSS has been used in previous studies (e.g., Chou, 2000; Zhang & Norvilitis, 2002). A pilot study found that the MSPSS-FS was negatively correlated with the HKC-DES-T ($r = -.302$, $p < .01$) in a Hong Kong college student sample ($N = 102$) (unpublished data). The MSPSS-FS had excellent internal consistency in the present study (Cronbach's alpha = .912).

### Data analysis

To explore the clinical differences between dissociative depression and nondissociative depression, we compared the self-report data between participants who scored 20 or above on the DES-T (hereinafter, "the dissociative group") and participants who scored below 20 on the DES-T (hereinafter, "the nondissociative group"). Somatization symptoms were assessed with the SDQ-5. Schneiderian symptoms, BPD, trauma-related symptoms, and the history of childhood physical and sexual abuse were assessed with the SR-DDIS. The level of family support was assessed with the MSPSS-FS. Chi-square and independent sample t-tests were used to compare the differences between two groups.

## Results

### Overall sample characteristics

A total of $N = 68$ Hong Kong adult participants with clinical depression were included for analysis in this study. Their ages ranged from 18 to 60 ($M = 31.4$; $SD = 9.91$). Sixty participants (88.2%) were female, 7 (10.3%) were male, and one reported as "other". Most participants (54.4%) were currently employed, 29.4% were current students, and 16.2% were neither.

On the SR-DDIS, 66 participants (97.1%) also met the criteria for major depressive episode; of these 66 participants, 30.3% reported their major depression as "currently active, recurrence" while 6.1% reported as "currently active, first occurrence". Most participants (66.2%) reported themselves as current psychiatric outpatients. Anxiety disorder and bipolar disorder were the two most commonly reported comorbid diagnoses: 42.6% reported a clinical diagnosis of anxiety disorder and 16.2% reported bipolar disorder.

**Table 1.** Correlations among self-report symptoms and background variables.

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. DES-T | - | | | | | | | |
| 2. SDQ-5 | .401** | - | | | | | | |
| 3. Schneiderian symptoms | .455** | .269* | - | | | | | |
| 4. BPD symptoms | .519** | .404** | .372** | - | | | | |
| 5. MSPSS-FS | −.143 | −.282* | −.016 | −.143 | - | | | |
| 6. Age | −.309* | −.171 | −.428** | −.263* | −.092 | - | | |
| 7. Medications | .093 | .067 | .132 | .021 | −.095 | −.029 | - | |
| 8. Age of onset | −.199 | −.140 | −.316 | −.253* | −.021 | .793** | .004 | - |
| 9. Hospitalization | .016 | .026 | −.004 | −.024 | −.059 | −.002 | .015 | −.143 |

*Notes*. ** $p < .01$, * $p < .05$.

DES-T = The Dissociative Experiences Scale-Taxon; SDQ-5 = The 5-item Somatoform Dissociation Questionnaire; BPD = Borderline Personality Disorder; MSPSS-FS = The Multidimensional Scale of Perceived Social Support – Family Subscale; Medications = Number of types of psychiatric medications currently prescribed; Age of onset = Age of first time seeing a psychiatrist or a clinical psychologist; Hospitalization = Number of times being hospitalized for psychiatric conditions.

This was not a highly traumatized and dissociative sample. Around one fourth reported a history of childhood physical abuse and childhood sexual abuse (25% and 23.5%, respectively). The mean score of the DES-T was 16.1 ($SD$ = 14.1) and the mean score of the SDQ-5 was 6.65 ($SD$ = 2.20). Table 1 shows the correlations among the major variables in this sample.

## *Clinical differences between dissociative depression and nondissociative depression*

Of all 68 participants, 24 (35.3%) scored 20 or above on the DES-T and they made up the dissociative group; the rest participants made up the nondissociative group. There are some significant differences between the two groups.

First, the dissociative group scored significantly higher on the SDQ-5 than the nondissociative group ($M$ = 7.50; $SD$ = 2.90 vs $M$ = 6.18; $SD$ = 1.56), $t$ = 2.442, $p < .05$. It means that they reported higher occurrences in medically unexplained physical symptoms. Somatization has been identified as an indicator of psychosocial problems, or "an impaired capacity to communicate psychologic experiences" (Ford, 1997, p. 5).

Second, there were significant differences in BPD symptoms between two groups. The dissociative group reported significantly more BPD symptoms ($M$ = 5.54; $SD$ = 2.11 vs $M$ = 3.09; $SD$ = 2.47), $t$ = 4.115, $p < .001$. In particular, they endorsed certain specific BPD symptoms more frequently (see Table 2), including two symptoms obviously related to interpersonal and attachment issues (i.e., fear of abandonment and unstable relations). They were significantly more likely to meet the DSM-5 diagnostic criteria for the BPD on the SR-DDIS as well (70.8% vs 20.5%), $\chi 2$ (1) = 16.690, p < .001. It should be noted that BPD symptoms are closely related to psychosocial risk

**Table 2.** Differences in Schneiderian and borderline personality symptoms between dissociative and nondissociative depression group.

| | Dissociative depression group ($n$ = 24) | Nondissociative depression group ($n$ = 44) | Chi-Square Test | |
|---|---|---|---|---|
| Variables | % | % | $\chi 2$ ($df$ = 2) | $p$ |
| Schneiderian First-Rank Symptoms[#] | | | | |
| Voices arguing | 62.5% | 27.3% | 8.059 | .018 |
| Voices commenting | 58.3% | 25.0% | 7.525 | .023 |
| Made feelings | 66.7% | 22.7% | 12.701 | .002 |
| Made actions | 45.8% | 13.6% | 9.009 | .011 |
| Thoughts ascribed to others | 33.3% | 9.1% | 7.711 | .021 |
| Thought broadcasting | 20.8% | 2.3% | 10.333 | .006 |
| Borderline Personality Disorder symptoms[#] | | | | |
| Impulsivity | 70.8% | 40.9% | 6.363 | .042 |
| Unstable relations | 83.3% | 36.4% | 13.973 | .001 |
| Fear of abandonment | 75.0% | 29.5% | 13.167 | .001 |
| Chronic emptiness | 91.7% | 63.6% | 6.319 | .042 |

*Notes.* [#] Only significant findings were reported; Dissociative depression group = Participants who scored 20 or above on the Dissociative Experiences Scale-Taxon (DES-T); Nondissociative depression group = Participants who scored below 20 on the DES-T.

factors and generally require psychosocial treatment, as we will further discuss in the discussion part.

Third, there were also significant differences in Schneiderian symptoms between the dissociative group and the nondissociative group. The dissociative group reported significant more Schneiderian symptoms ($M$ = 4.38; $SD$ = 2.81 vs $M$ = 1.84; $SD$ = 2.49), $t$ = 3.835, $p < .001$. In particular, some symptoms, such as voices arguing and voices commenting, were more frequently reported in the dissociative group (see Table 2). The literature suggests that Schneiderian symptoms, especially auditory hallucinations, are strongly associated with childhood adversities (Ross & Joshi, 1992). Studies also showed that many psychosocial factors (e.g., child abuse, poverty, early loss of parents) are significant risk factors for, or have a causal relationship with, such symptoms (Read, Bentall, & Fosse, 2009).

Fourth, the dissociative group ($n$ = 21) was more likely to report childhood physical abuse than the nondissociative group ($n$ = 39) (47.6% vs 17.9%), $\chi 2$ (1) = 5,918, $p$ = .015. This was calculated in exclusion of the those who answered "not sure" ($n$ = 8). A history of childhood physical abuse could discriminate between two groups. This implies that the dissociative group may have experienced more childhood physical abuse.

Fifth, regarding the level of family support, we found that there was difference in the item "my family really tries to help me" between two groups. Compared with the nondissociative group, the dissociative group was significantly more likely to be low scorers (i.e., score 3 or below) on that item

(27.3% vs 58.3%), $\chi 2$ (1) = 6,344, $p$ = .012. It implies that participants in the dissociative group may have been receiving less help from their family.

Sixth, on the SR-DDIS, the two groups also had significant differences in flashbacks, feeling of unreality and amnesia for childhood, which are common symptoms of trauma-related conditions (Ross, 2007; Van Der Hart, Nijenhuis, Steele, & Brown, 2004). The dissociative group was more likely to report flashbacks (37.5% vs 4.5%) ($\chi 2$ (1) = 12.438, $p$< .001), feeling of unreality (16.7% vs 0%) ($\chi 2$ (1) = 7.792, $p$ = .005) and amnesia for childhood (41.7% vs 9.1%) ($\chi 2$ (1) = 10.080, $p$ = .001) than the nondissociative group. It is worthy to note that trauma-related symptoms generally require more psychosocial interventions than biological treatment (Cloitre et al., 2012; van der Kolk, 2014).

Taken together, these findings show that the dissociative group presented with much more psychosocial-related symptoms and psychosocial risk factors than did the nondissociative group. Nonetheless, the dissociative group was in contrast more likely to have been prescribed antipsychotic medications than the nondissociative group (37.5% vs 15.9%), $\chi 2$ (1) = 4.023, $p$ = .045. This potential mismatch between etiology and treatment might need further attention and discussion.

## Discussion

With reference to the concept of dissociative depression (Şar, 2011, 2014, 2015), this preliminary study tried to explore whether it is possible to differentiate dissociative depression participants and nondissociative depression participants in Hong Kong. The findings indicated distinguished differences occurred between the two groups. The differences might have significant implications for treatment considerations.

Compared with the nondissociative group, the dissociative group reported higher rates in somatization symptoms, BPD symptoms and Schneiderian symptoms; they were also more likely to report certain interpersonal-related symptoms (e.g., unstable relations, fear of abandonment) and trauma-related symptoms (e.g., flashbacks). In addition, the dissociative group was more likely to receive a low level of help from their family and have a history of childhood physical abuse.

The initial findings in the current study are consistent with the literature. For example, both our study and Şar, Akyüz, Öztürk, and Alioğlu (2013)'s Turkish study showed that the dissociative depression group had significantly more Schneiderian symptoms and BPD symptoms than the nondissociative depression group. However, we could not find significant differences in age, sexual abuse and specific major depressive symptoms – as such differences were found between depressive women with and without a DD in another study (Şar et al., 2013). These inconsistencies may be

due to the difference in sample's context and definition of dissociative depression grouping method: our definition of the dissociative depression group (DES-T ≥ 20) was not the same as that of Şar et al. (2013)'s study (a positive diagnosis of DD).

Our results, nevertheless, reveal that the concept of dissociative depression is inspiring because patients with depression who reported a high level of dissociation exhibited distinct clinical features. The etiology, development and course of the dissociative depression may be different from that of nondissociative depression. Patients with dissociative depression appear to have more comorbid conditions (e.g., Schneiderian and BPD symptoms). Their complicated conditions may therefore result in poor response to traditional depression treatment (Şar, 2011, 2015). These findings have significant implications for research and practice.

### *Assessing the prevalence of dissociative depression*

In many regions such as Hong Kong, studies on depression usually did not consider the potential role of dissociation, and patients with depression were rarely screened for comorbid dissociation. More studies need to be done in various cultures and settings to investigate the potential impacts of co-occurring dissociation on patients with depression. Since previous studies (Şar et al., 2013) and our current findings both indicate that the concept of dissociative depression is inspiring and could contribute to our understanding of patients with depression, future studies should further examine the prevalence, reliability, validity and associated factors of dissociative depression in various clinical and non-clinical populations and in different cultures. More investigation is needed before researchers in the field could propose appropriate diagnostic criteria for dissociative depression and could determine whether dissociative depression should be included as a distinct subtype of major depressive disorder. Also, more research is needed to investigate the subgroup of patients with depression who have comorbid dissociative symptoms or disorders in order to facilitate early identification and inform better treatment.

### *Psychosocial interventions for dissociative depression*

Patients with depression who report pathological dissociation have distinct clinical features which may not be traceable to a physical cause. This may imply that psychosocial treatments may play a more important role when depressive patients show comorbid dissociative symptoms.

Our findings suggest that patients with depression who scored 20 or above on the DES-T reported more psychosocial etiological risk factors (e.g., childhood physical abuse, low level of perceived help from family) and presented with more psychosocial-related symptoms (e.g., feeling of unreality, flashbacks). In particular,

they reported higher frequency in certain interpersonal-related symptoms such as fear of abandonment and unstable relations. It should be noted that BPD symptoms are highly related to trauma (Ball & Links, 2009; Lewis & Grenyer, 2009), and that currently there are no effective pharmaceutical treatments to target such psychosocial symptoms of BPD (Goodman, Vail, West, New, & Siever, 2007). Moreover, those psychosocial adversities and trauma-related symptoms reported in patients with dissociative depression also require psychosocial interventions, as these issues can hardly be treated solely with pharmaceutical interventions (Van der Hart et al., 2006; van der Kolk, 2014). These clinical differences between dissociative and nondissociative depression imply that psychosocial service providers such as social workers and counselors can play an important role in the treatment for patients with depression who exhibit a high level of dissociation. For instance, psychosocial interventions may be helpful for patients with dissociative depression to process trauma memories, manage trauma-related symptoms, cope with BPD symptoms and alleviate the interpersonal distress. Yet, in our sample, even though participants in the dissociative depression group reported significantly more psychosocial etiological factors and more psychosocial-related symptoms, they were more likely to have been prescribed antipsychotic medications. The more frequent use of antipsychotics might be the results of their more complicated and comorbid symptoms: when the psychosocial context of a patient's clinical symptoms is not well recognized, some practitioners may tend to see those Schneiderian symptoms (e.g., hearing voices) as biological symptoms and therefore employ pharmaceutical treatment approach (Moskowitz, Read, Farrelly, Rudegeair, & Williams, 2009). In fact, it is not surprising that patients with dissociative depression in our sample reported more Schneiderian symptoms because Schneiderian symptoms highly correlates with psychological trauma and dissociation (Ross & Joshi, 1992) and because dissociative patients even reported more Schneiderian symptoms than patients with schizophrenia (Ross & Ellason, 2005). Some scholars also believe that many Schneiderian symptoms may be dissociative in nature (see Dell, 2009). This implies that the psychosocial context of patients with depression may require more clinical attention, especially if they suffer from comorbid dissociation. Future research is also needed to explore and evaluate what kinds of interventions are effective for patients with depression who also have comorbid dissociation. More evidence is necessary to examine whether more psychosocial etiological risk factors and psychosocial related symptoms in patients with depression really predict better treatment responses to psychosocial interventions.

### *Is dissociation a marker for practitioners to consider psychosocial interventions?*

Dissociation appears to be a transdiagnostic factor which should require more clinical attention even to non-DD patients. For instance, Hariri et al. (2015)

reported that illness duration, age of onset, and childhood maltreatments were associated with certain dissociative experiences in bipolar disorder; Parlar, Frewen, Oremus, Lanius, and McKinnon (2016) also indicated that dissociative symptoms are associated with reduced neuropsychological performance in traumatized patients with depression. Today, the dissociative subtype of PTSD is already recognized in *DSM-5*; some scholars proposed to include the dissociative subtype of schizophrenia (Ross, 2009) and the category of dissociative depression (Şar et al., 2013) in future diagnostic systems. Given the strong association between psychosocial adversities and dissociation (Nijenhuis, Spinhoven, van Dyck, Van der Hart, & Vanderlinden, 1998; Putnam, 1985; Van der Hart et al., 2006), dissociation may be a transdiagnostic indicator of the needs for psychosocial intervention.

Further, while both *ICD-10* and *DSM-5* have a specific category for the DDs, dissociation can also occur in other diagnostic groups (Lanius, Brand, Vermetten, Frewen, & Spiegel, 2012; Scalabrini, Cavicchioli, Fossati, & Maffei, 2016). In fact, dissociation is increasingly understood as a transdiagnostic factor which could interact with other clinical factors or even affect the treatment responses and recovery processes (Şar & Ross, 2006). Studies should be done to evaluate the potential use of dissociation as an easily-measured indicator to identify psychosocial treatment needs in psychiatric patients across diagnostic categories. The clinical implications would be significant especially in intervention planning and optimize utilization of resources. Finally, it should be noted that practitioners need to carefully consider whether dissociation is a comorbid condition or a core issue (in such cases, depression may be just a presenting symptom) when working with patients with both depression and dissociation.

## Concluding remarks

Despite the interesting findings and potential implications, the present study is preliminary and has some limitations, and therefore future studies are needed. For instance, our convenience sample originally recruited online participants for a validation study could not represent the entire population of patients with depression in Hong Kong; and, our sample size was comparatively small too. In addition, we only employed self-report data and did not use structured interviews to confirm the diagnostic background of the participants; and we only used the two SR-DDIS items to assess childhood trauma, and therefore we could not figure out if other adverse experiences (e.g., emotional abuse, family violence, peer bullying) would play an important role in dissociative depression in our sample. Future studies should also investigate whether somatoform dissociation is as good as psychoform dissociation in identifying psychosocial intervention needs.

These limitations notwithstanding, this is the first study in a Chinese context that aimed to apply the concept of dissociative depression, which first

illustrated in a previous study in Turkey, and compare the clinical differences between depressive individuals with and without dissociation. While the findings should be interpreted with caution, we revealed that, in this Chinese sample, patients with depression who have a high level of dissociation exhibited distinct clinical features, implying that the concept of dissociative depression is inspiring and may have cross cultural significance. Dissociation may be a marker of a subgroup of patients with depression who may require different clinical management (e.g., more psychosocial interventions). If so, this may have profound practice implications for social workers, primary care service providers and other non-pharmaceutical health practitioners who work with patients with depression. Further research and discussion are warranted.

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