Abstract

The ability to predict which groups of mental health service users are more likely to require psychosocial care could facilitate intervention planning and optimize utilization of resources. Dissociation may be a transdiagnostic indicator of psychosocial intervention needs because dissociation is theoretically and empirically associated with psychosocial adversities. This paper explains why that may be the case. We investigated the association of somatoform dissociation with indicators of psychosocial intervention needs (e.g., childhood trauma, poor family well-being, psychosocial-related symptoms) in a convenience sample of mental health service users ($N = 111$). The preliminary evidence supports the idea that dissociation is a transdiagnostic indicator of psychosocial intervention needs. Dissociation should be regularly assessed in mental health settings because it may help social workers and other psychosocial service providers identify service users who may especially need psychosocial care when there is a lack of resources. Further studies and discussion are needed.

Keywords: Dissociation; Somatoform dissociation; Mental health; Assessment; Psychosocial care; Social work

The possibility of using dissociation to identify mental health service users with more psychosocial intervention needs: Rationale and preliminary evidence

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Introduction

Mental health problems are a serious public health problem that result in numerous individual and social costs. Although the etiologies and treatments of various mental disorders have been investigated for many decades, a significant number of people living with mental health problems are still suffering, either due to lack of treatment, or due to being non-responders to the treatments provided for them. There are increasing number of biomedical treatments for people with mental health problems, nevertheless, a considerable number of mental health service users do not benefit significantly from biomedical treatments and many pharmacological interventions unavoidably involve side effects (Bak, Fransen, Janssen, van Os, & Drukker, 2014; Suzuki et al., 2012). A recent study also indicated that treatment response may be affected by individual differences (Maslej, Furukawa, Cipriani, Andrews, & Mulsant, 2020).

More importantly, a shortage of mental health services and resources is still a challenge for many countries. In places such as Hong Kong, China, Thailand and India, there is a lack of either or both psychopharmacological service providers (e.g., psychiatrists, psychiatric nurses) and psychosocial service providers (e.g., social workers, counsellors, psychologists) for people who suffer from mental health problems. Some service users may require more biological treatments, while some other service users may require more psychosocial interventions, although a combination of both biological and psychosocial interventions may be ideal if resources are available. Given the limited time and resources available in clinical settings, the ability to predict which groups of service users are more likely to require psychosocial interventions (and vice versa, which are not) could facilitate intervention planning and optimize utilization of resources. Social workers and other psychosocial service providers can make a significant contribution to mental health service users if their psychosocial intervention needs are identified.

Among many different mental health phenomena, *dissociation* may be a promising indicator of psychosocial intervention needs among mental health service users. Dissociation refers to a failure in the process of integrating various biopsychosocial experiences and functions (e.g., memories, emotions, behaviors, motor control, identities) within one's personality system (American Psychiatric Association, 2013; Van der Hart, Nijenhuis, & Steele, 2006). In other words, when a person suffers

from dissociation (here we refer to pathological dissociation, rather than normal dissociation such as daydreaming and general forgetfulness), he/she has some normally accessible and controllable experiences or functions that remain unintegrated (disconnected) and uncontrollable, which could result in dissociative amnesia (e.g., memory gaps), depersonalization (e.g., feeling numb, out of body experiences), somatoform symptoms (e.g., medically unexplained physical symptoms), intrusive symptoms (e.g., flashbacks of painful memories) or identity dissociation (having more than more distinct identity/personality states) (Fung & Ross, 2019).

Symptoms of dissociation can be classified as psychoform or somatoform and as positive or negative dissociative symptoms (Van der Hart, Nijenhuis, & Steele, 2005). Negative symptoms such as numbing and amnesia are based on withdrawal of psychological functions from the executive self, whereas positive symptoms such as flashbacks are based on intrusions into the executive self from dissociated sectors of the mind. Dissociation has been well-operationalized in the literature and its relationships with adverse psychosocial experiences (e.g., childhood trauma) is also well-documented (Dalenberg et al., 2012; Fung & Lao, 2017; Lyssenko et al., 2018; Ross, 2007).

In recent years, it has been suggested that dissociation indicates a need for specific psychological treatments in patients with depression (i.e., *dissociative depression*) (Şar, 2011, 2015). Ross also proposed that patients with schizophrenia who suffer from extensive and severe dissociative symptoms should be regarded as having a *dissociative subtype of schizophrenia* and provided with psychological interventions (Ross, 2009; Ross & Keyes, 2009).

Dissociation may be a potential *transdiagnostic* indicator of psychosocial intervention needs because, as mentioned, dissociation is theoretically and empirically associated with psychosocial adversities, especially trauma (Dalenberg et al., 2012; Van der Hart et al., 2006). Dissociation has been found to have a positive association with the severity of adverse experiences and with the degree of post-traumatic stress (Kohl, 2010; Nijenhuis, Spinhoven, van Dyck, Van der Hart, & Vanderlinden, 1998; Putnam, 1997) and has been said to be the "ultimate form of human response to chronic developmental stress" (i.e., adverse psychosocial factors) (Şar, 2014, p. 171). Therefore, we believe that dissociation could be an indicator of the need for psychosocial interventions – those who present with dissociative symptoms are more likely to have encountered adverse psychological experiences,

and therefore are more likely to require psychosocial assessment and interventions, regardless of their diagnoses.

In a previous study, psychoform dissociation was found to be associated with 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) in a sample of patients with depression (Fung & Chan, 2019). The present study investigated whether somatoform dissociation would also be an indicator of psychosocial intervention needs in a sample of general mental health service users. Psychoform dissociation involves psychological symptoms such as amnesia, numbing and auditory hallucinations, while somatoform dissociation involves psychosomatic symptoms such as nonorganic pain, sensory anesthesia and conversion symptoms.

Methods

This study analyzed data from a survey that examined childhood adversities and mental health problems in an online convenience sample of Hong Kong adults ($N = 418$); the methodology and part of the data has been reported elsewhere (Fung, Chung, & Ross, 2020). The study was approved by the institutional review board of the City University of Hong Kong. Online informed consent was obtained from each participant. A total of 111 participants reported previous/current use of psychiatric services, and they were included for analysis in the present study. All participants completed the online survey that included the following self-report measures:

The Adverse Childhood Experiences (ACEs) Questionnaire (Bruskas & Tessin, 2013) has 10 yes/no items that assess 10 different types of childhood adversities, such as physical abuse and neglect, emotional abuse and neglect, sexual abuse, and some household dysfunctions. The Chinese version of the ACEs Questionnaire has been used in previous studies (Fung, Ross, Yu, & Lau, 2019).

The 4-item Overall Family Well-being Scale (OFWS) (Hong Kong Family Welfare Society, 2018) is a brief measure that has been used in the Chinese context, including the "Hong Kong Family Well-being Survey 2018" (Hong Kong Family Welfare Society, 2018). The OFWS has 4 five-point items and can be used to measure four different aspects of family well-being, which include family

communication, parenting, mental well-being and material well-being. An example item is, "*overall, the living conditions of my family can meet our needs*." Since the OFWS allows participants to select "not sure", "not applicable" or "no answer", these answers were treated as missing data in this study – only participants without missing data (n = 90) were included for analysis for this specific variable.

The 9-item Patient Health Questionnaire (PHQ) (Kung et al., 2013) is a commonly-used self-report measure of depression and it has been validated in the Chinese context (Yeung et al., 2008).

The Generalized Anxiety Disorder 7-item Scale (GAD-7) (Löwe et al., 2008) is a common self-report measure of anxiety. The GAD-7 has proven to be reliable and valid in the Chinese context (He, Li, Qian, Cui, & Wu, 2010).

The Post-traumatic Stress Disorder Checklist (PCL) (Weathers, Litz, Herman, Huska, & Keane, 1993) has 17 items and can be used to assess post-traumatic symptoms according to DSM-IV rules. The PCL for DSM-5 (PCL-5) was not used because it had not been validated at the time of this project in the Chinese context. The PCL for DSM-IV has been validated in Hong Kong (Wu, Chan, & Yiu, 2008).

The Borderline Personality Disorder (BPD) Section of the Self-Report Dissociative Disorders Interview Schedule (DDIS-BPD) (Ross et al., 1989) was used to assess BPD symptoms. The DDIS as a self-report measure has been validated in the Chinese context (Fung, Choi, Chan, & Ross, 2018). The BPD-DDIS has 9 items (e.g., "*unstable identity, self-image, or sense of self*") that correspond to the 9 DSM-5 criteria for BPD. Participants can answer "yes", "no" or "not sure" for each item. The self-report DDIS-BPD has been used in previous studies (Fung, Ho, & Ross, 2018; Ross & Browning, 2017) and could effectively detect BPD in a Chinese sample of psychiatric patients (N = 56) (sensitivity = 87%, specificity = 77%) (Fung, Chan, et al., 2020).

The 5-item Somatoform Dissociation Questionnaire (SDQ-5) (Nijenhuis, Spinhoven, van Dyck, Van der Hart, & Vanderlinden, 1997) is a brief version of the original 20-item SDQ (Nijenhuis, Spinhoven, van Dyck, Van der Hart, & Vanderlinden, 1996). This measure assesses somatoform dissociation, rather than psychoform dissociation. An example item of the SDQ-5 is, "*I have pain while urinating*." The SDQ-5 has been validated in a Chinese sample (Fung, Choi, et al., 2018).

For analysis in the present study, participants who scored 9 or above on the SDQ-5 were regarded as the dissociative group and other participants were regarded as the nondissociative group. This cut-off was determined according to a previous study (Fung, Choi, et al., 2018). Differences between the two groups were explored. ACEs and a low OFWS score were regarded as indicators of psychosocial intervention needs. In addition, the PCL and DDIS-BPD scores were also regarded as indicators of psychosocial intervention needs because first-line treatments for post-traumatic stress and BPD are psychological interventions.

Results

Overall analysis

In this sample of N = 111 mental health service users, the mean SDQ-5 score was 7.84 (SD = 3.72). The SDQ-5 was not significantly correlated with age, but it was negatively correlated with family well-being (OWFS) ($r = -.214$, $p = .043$) and positively correlated with the number of ACEs ($r = .300$, $p = .001$) , depression (PHQ) ($r = .435$, $p < .001$), anxiety (GAD-7) ($r = .440$, $p < .001$), borderline personality disorder symptoms (DDIS-BPD) ($r = .381$, $p < .001$), and PTSD symptoms (PCL) ($r = .521$, $p < .001$). No gender differences were found in the SDQ-5 scores.

We also reported the frequency and correlates of each SDQ-5 item in Table 1. Inability to speak (item 5) appears to be the most common somatoform dissociative symptom in this sample, while pain during urinating (item 1) was the rarest somatoform dissociative symptom in this sample; item 1 also had the strongest correlation with the number of ACEs.

Differences between the dissociative group and the nondissociative group

There were 32 participants in the dissociative group (SDQ-5 >= 9) and 79 participants in the nondissociative group (SDQ-5 < 9).

We first examined whether the two groups differed in age, gender, financial independence, individual monthly income and education level. No differences were found in age, gender, financial independence, individual monthly income and education level between the two groups.

We then examined whether the two groups differed in childhood adversities and family well-being. It was found that participants in the dissociative group were more likely to report childhood

emotional abuse and neglect and physical abuse; they were also more likely to report more ACEs (see Table 2). In addition, they reported significantly lower levels of family well-being as measured with the OFWS (see Table 3).

Finally, we examined if the two groups differed in self-reported mental health problems. Compared with the nondissociative group, the dissociative group scored significantly higher on measures of depression, anxiety, post-traumatic stress and BPD symptoms (see Table 3).. Moreover, it should be noted that they also had significantly more comorbid mental health problems as screened with the PHQ, the GAD-7, the DDIS-BPD and the PCL (see Table 3).

Discussion

Following on from recent discussion in the literature (Fung & Chan, 2019), the present study aimed to further consideration of the possibility of using dissociation as a transdiagnostic indicator to identify mental health service users who may have more psychosocial intervention needs. This hypothesis, which we call *the dissociation hypothesis of mental disorders*, could have significant implications for mental health practice and resource allocation since, if proven to be valid by additional research, it could help practitioners provide timely psychosocial interventions for mental health service users who may previously only have had the chance to receive pharmacological treatments. Dissociation scores may provide a way for practitioners to predict who may especially need psychosocial interventions when psychosocial resources are lacking.

A previous study showed that psychoform dissociation can identify service users with depression who have more psychosocial intervention needs (Fung & Chan, 2019). The present study provides data showing that mental health service users with somatoform dissociation, regardless of their diagnosis, are more likely to have more childhood adversities, poor family well-being and more psychosocial-related mental health problems (post-traumatic stress and BPD symptoms) than those without somatoform dissociation. These variables can be regarded as indicators of psychosocial intervention needs. Interestingly, participants with somatoform dissociation screened positive for more comorbid conditions, suggesting that their mental health problems are more complicated and may require a more integrated treatment approach including psychosocial care.

Despite providing the preliminary evidence that dissociation could be a transdiagnostic indicator of psychosocial intervention needs, this study suffered from some limitations. For example, only self-report data were used; the findings from this convenience online sample may not be generalizable to clinical populations; the clinical diagnoses of participants were unknown; more importantly, we could not measure their actual treatment responses to psychosocial interventions. Because of the cross-cultural nature of dissociation (Fung, 2018; Fung & Lao, 2017; Lewis-Fernández, 2007; Ross et al., 2008), we believed that the findings from this Hong Kong sample may apply to other cultural contexts; however, further investigation in different populations is necessary. Also, this study did not measure psychoform dissociation – future studies should measure both psychoform and somatoform dissociation in order to investigate which is a better transdiagnostic indicator of psychosocial needs. Nevertheless, consistent with the literature, this study indicates that dissociation is associated with indicators of psychosocial adversities and psychosocial-related symptoms – we reported the correlates of somatoform dissociation in this sample of general mental health service users. Given its clinical relevance, we suggest that either or both psychoform and somatoform dissociation should be regularly assessed in mental health settings.

The assessment of dissociation is straightforward using standardized measures (e.g., the SDQ-5, the DDIS) and it may be a cost-effective way for social workers and other psychosocial service providers to identify those service users who may especially need psychosocial care. It may help practitioners prevent overlooking service users who intentionally or unintentionally hide their psychosocial difficulties (e.g., do not report childhood trauma or family violence due to trauma-related amnesia, shame or a sense of insecurity). The assessment of dissociation may also help practitioners identify service users whose presenting symptoms appear to have biological origins (e.g., hallucinations may be generally understood as psychotic symptoms that require biological treatments) but who in fact are suffering from unrecognized psychosocial problems (e.g., the hallucinations may be trauma-related or dissociative in nature) (Moskowitz, Mosquera, & Longden, 2017; Moskowitz, Read, Farrelly, Rudegeair, & Williams, 2009).

Further studies and discussion regarding whether dissociation is a reliable transdiagnostic indicator of psychosocial intervention needs (e.g., dissociation-informed social work care and

psychotherapy) are required. For example, future studies could compare the treatment responses to trauma-informed psychosocial interventions between mental health service users with and without dissociation, and evaluate specialized psychotherapy for mental health service users with and without dissociation. We hypothesize that mental health service users with dissociation will respond better to psychosocial interventions that specifically tackle their psychosocial difficulties.

Concluding remarks

This paper explains why dissociation may be a helpful indicator of psychosocial intervention needs of mental health service users regardless of their diagnoses. Preliminary evidence from a survey study was provided. Since this idea may have significant implications for mental health practice and resource allocation, further discussion and investigations are required. Because of the clinical relevance of dissociation, we suggest that either or both psychoform and somatoform dissociation should be regularly assessed in mental health settings.

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