Third wave strategies for emotion regulation in early psychosis: A pilot study

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ABSTRACT

Aim: Emerging evidence supports the priority of integrating emotion regulation strategies in cognitive behaviour therapy for early psychosis, which is a period of intense distress. Therefore, we developed a new treatment for emotional regulation combining third wave strategies, namely, compassion, acceptance, and mindfulness (CAM) for individuals with early psychosis. The purpose of this study was to examine the acceptability, feasibility, and potential clinical utility of CAM.

Method: A pilot non-controlled prospective follow-up study was conducted. Outpatients from the First Psychotic Episode Clinic in Montreal were offered CAM, which consisted of eight-week 60 to 75 minutes weekly group sessions. Measures of adherence to medication, symptoms, emotional regulation, distress, insight, social functioning, and mindfulness were administered at baseline, post-treatment, and at 3-month follow-up. A short feedback interview was also conducted after the treatment. **Results:** Of the 17 individuals who started CAM, 12 (70.6 %) completed the therapy. Average class attendance was 77 %. Post-treatment feedback indicated that participants found the intervention acceptable, and helpful. Quantitative results suggest the intervention was feasible and associated with a large increase in emotional self-regulation, a decrease in psychological symptoms, especially anxiety, depression, and somatic concerns, and improvements in self-care.

Conclusion: Overall results support the acceptability, feasibility and potential clinical utility of the new developed treatment. A significant increase in emotional self-regulation and a decrease in affective symptoms were found. No significant changes were observed on measures of mindfulness, insight, distress, and social functioning. Controlled research is warranted to validate the effectiveness of the new treatment.

Introduction

Two recent systematic reviews found that meditation and mindfulness techniques are useful adjuncts to usual care for psychotic disorders in reducing distress, hospitalization rates, and increasing feelings of self-efficacy (Davis and Kurzban, 2012; Helgason and Sarris, 2013), another more general meta-analysis found that mindfulness strongly moderate the effectiveness of mindfulness-based treatments for multiple psychiatric disorders and medical conditions (Khoury et al., submitted).

To date, few studies have tested these treatment strategies in early psychosis, which is a period of intense distress. Learning emotion regulation strategies might prove useful in diminishing distress associated with psychotic experience. As such, we developed an 8-sessions group-based treatment for individuals with early psychosis using 3rdW strategies, namely compassion, acceptance, and mindfulness (we called it CAM).

The purpose of this pilot study was to determine the treatment's acceptability by participants, its feasibility and potential clinical utility for individuals in early psychosis.

We hypothesized that CAM would be 1) feasible and favourably received; and associated with improvements in 2) emotional self-regulation; 3) symptoms, particularly affective ones; 4) insight, 5) distress; and 6) maintained at 3-month follow-up.

Method

Participants

17 (out of 27 approached) individuals from the first psychotic episode clinic at the Louis-H Lafontaine Hospital in Montreal (Canada) accepted to participate in this study.

Inclusion criteria consisted of: a diagnosis within the schizophrenia-spectrum, currently followed by the first episode clinic, fluent in French, no known organic disorder or mental retardation, and capacity to offer informed consent.

Among the recruited, 12 provided data after the treatment, and 10 provided data at follow-up (i.e., three months later). Average age was 29, 8 men and 4 women., 8 with a Dx of schizophrenia, 4 with other types of psychosis.

Average therapy attendance among the participants was 6.17 sessions (SD = 1.34) out of 8.

Instruments

Brief Psychiatric Rating Scale-Expanded. The BPRS (Lukoff et al., 1986) is a 24 item semi-structured interview assessing the presence and the severity of psychiatric symptoms on a 7-point Likert scale. It offers scores: positive symptoms, negative symptoms, anxiety-depression, and manic-excitement, as well as a total score.

Emotional self-regulation. We used the Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski & Kraaij, 2007). This measure is a self-report questionnaire that can be divided into positive and negative emotion regulation scores.

Social functioning Scale The SFS (Birchwood et al., 1990) is widely used to assess many dimensions of social functioning in people with severe mental illness.

Psychological Distress. The Psychological Distress Manifestation Measure Scale (PDMMS; Poulin et al., 2005) is a short self-report questionnaire with 23 manifestations, only the total scale is used here**.**

Freiburg Mindfulness Inventory (FMI) – short version. To measure the level of mindfulness, we used the Freiburg Mindfulness Inventory – short version comprising only 14 items (Buchheld et al., 2001).

Cognitive Insight. In evaluating the participants' ability to understand their symptoms and their behaviours, we used the Beck Cognitive Insight Scale (BCIS; Beck et al., 2004). It comprises 15-items measuring reflection, openness to feedback, and judgement biases. We used the total scale.

Session	Content of CAM group sessions
1	Introduction to mindfulness *Mindfulness Exercise: eating an apple mindfully*
2	Values: define your own values, differences between values and goals *Mindfulness exercise: calming and self-soothing breathing*
3	What prevents me from advancing in the direction of my own values? *Mindfulness Exercise: Imagining a peaceful and safe place*
4	Acceptance: what is it? Detachment: being an external observer. What you do when faced with threatening feelings or thoughts *Mindfulness Exercise: Exposure via imagery to a difficult memory while practicing calming and self-soothing breathing (from session 2)*
5	Self-compassion: what is it? Group discussion about how to generate compassion towards oneself *Mindfulness Exercise: compassion towards oneself using Loving-Kindness Meditation*
6	The role of compassion towards others in one's own well-being *Mindfulness Exercise: compassion towards others using Loving-Kindness Meditation*
7	Other ways to increase wellness: narrative writing and social support *Mindfulness Exercise: half-smile*
8	Revision of the Module The role of positive emotions such as hope and optimism in well-being *Mindfulness Exercise: Vipassana Meditation*

Results

Completers versus non-completers

No significant differences were found between the two groups on socioeconomic data or on any other baseline measure, except for social functioning. Non-completers had lower social functioning namely on the interpersonal behaviours subscale of the SFS (t(15) = -2.14, $p < .05$).

Potential intervention effects

Analyses revealed large improvements (d = 1.00) in regulating negative emotions (i.e., self-blaming, rumination, and catastrophizing) among participants at three-month follow-up.

Participants also showed a moderate improvement (d = 0.61) in total regulation of emotions (i.e., positive and negative) at three-month follow-up, even though results were marginally significant (p = 0.06).

For the BPRS total score, results showed a small effect (d = 0.25) at follow up, not statistically significant (p = 0.11).

Positive symptoms showed a small improvement at post treatment (d = 0.36), and depression-anxiety subscale showed a moderate to large improvement at follow-up (d = 0.68), but results were a trend toward significance in both cases. The symptoms that mostly improved were: anxiety (d = 0.92), depression (d = 0.91), self-neglect (d = 0.71), and somatic concerns (d = 0.50). The values of effect sizes were calculated at 3-month follow-up, and results were statistically significant for anxiety, self-neglect, and somatic concerns ($p < 0.05$), and marginally significant for depression (p = 0.065). No significant improvements were found for social functioning, mindfulness, insight, and distress measures.

Table 2

Means, Standard Deviations and Effect Sizes (Cohen's d) for all measures at Pre, Post and 3-month Follow-up

Outcome	T0 (baseline)	T1 (post-therapy)	Effect size (d)		T2 (3-months follow-up)	Effect size (d)	
Measure	*Mean* (*SD*)	*Mean* (*SD*)	Pre-Post	p-value	*Mean* (*SD*)	Pre-Follow-up	p-value
Symptoms							
BPRS total	41.83 (13.59)	37.83 (6.86)	0.279	0.156	38.70 (9.75)	0.246	0.109
Positive	9.92 (5.32)	7.08 (3.60)	0.361	0.087$^{\Delta}$	8.40 (3.97)	0.203	0.343
Negative	6.83 (2.08)	6.00 (2.04)	0.404	0.166	6.70 (2.79)	0.200	0.575
Depression-anxiety	10.50 (5.20)	9.00 (3.84)	0.318	0.250	8.10 (2.81)	0.676	0.082$^{\Delta}$
Manic-excitement	7.92 (2.87)	9.25 (5.03)	-0.198	0.382	7.70 (2.36)	0.136	0.522
Mindfulness							
FMI total	37.58 (6.64)	38.25 (6.74)	0.100	0.548	39.50 (8.33)	0.252	0.430
Emotional regulation							
CERQ total	114.42 (17.14)	115.75 (20.24)	0.070	0.775	125.60 (19.29)	0.611	0.060$^{\Delta}$
Positive	61.25 (12.76)	62.17 (13.60)	0.070	0.777	63.70 (14.12)	0.182	0.540
Negative	53.17 (9.21)	53.58 (11.84)	0.038	0.877	61.90 (8.08)	1.003	0.007**
Insight							
BCIS total	39.00 (8.19)	36.92 (4.98)	-0.269	0.230	36.40 (6.43)	-0.341	0.239
Psychological distress							
PDMMS total	54.00 (20.81)	54.17 (16.71)	-0.008	0.958	51.80 (17.50)	0.114	0.905
Social functioning							
SFS total	122.17 (18.21)	124.83 (18.60)	0.144	0.548	121.30 (23.66)	-0.040	0.985

$^{\Delta}$ $p < .10$ (marginally significant). * $p < .05$. ** $p < .01$.

Qualitative results

The attendance rate was 77 % for the treatment completers.

The majority of participants (n = 8) reported that the treatment was a positive experience, describing it as "*nice, wonderful, interesting and nourishing*", while one participant considered the experience as negative and "*not nourishing enough*", and 3 were ambivalent, describing their experience as "*ok, normal, ordinary, or convenient*".

Regarding the components in the treatment, mindfulness was the most retained (n = 8), liked (n = 4), and practiced (n = 8), followed by interactions with the other group members and/or the therapists (n = 5), while compassion and acceptance were less reported by participants. The most common complaint was the lack of attendance among other participants.

9/12 participants reported changes in their daily lives following the treatment and nine reported that they would recommend the therapy to a friend.

Conclusion

Overall results support the feasibility of the new developed treatment, supporting our first hypothesis. The majority of the participants found the treatment positive and helpful.

As expected, participants reported large improvements in regulating negative emotions (specifically self-blaming, rumination, and catastrophizing), and moderate to large improvements on affective symptoms (specifically depression, anxiety, and somatic concerns).

Most of the results were stronger at 3-month follow-up than immediately following the 8-week CAM sessions, suggesting that the treatment might be more beneficial in the long run, as found in many CBT for psychosis studies.

The CAM group protocol for emotional regulation appears acceptable, feasible, and shows promise in terms of potential clinical treatment for early psychosis. Further studies are warranted in order to determine its efficacy in improving acceptance, compassion, and mindfulness practice, and in diminishing distress and symptoms.