

Proposal on Modified Jackson Pollock's Art Therapy for Depression based on Center for Epidemiologic Studies Depression Scale

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Abstract. We propose modified Jackson Pollock's art therapy for depression based on center for epidemiologic studies depression scale. Since legacy Jackson Pollock's art therapy does not match 7 symptom category in center for epidemiologic studies depression scale, it cannot be directly applied. The proposed art therapy is modified to utilize center for epidemiologic studies depression scale for recommending Jackson Pollock's art therapy for depression.

Keywords: Depression; Art therapy; Expert system; Jackson Pollock

1 Introduction

Depression is a serious social problem in modern society. Art therapy is one of the most popular auxiliary therapy for depression [2-6]. We proposed an artificial art therapy recommendation system for patients with depression based on an expert system [1]. In the previous work, we specifically targeted to Jackson Pollock's art therapy for depression. However, the original Jackson Pollock's art therapy about depression does not match modern depression tests such as Center for Epidemiologic Studies Depression Scale (CES-D) [7].

Modern and accurate test should be conducted to recommend and to maximize the effect of art therapy. The original Jackson Pollock's art therapy is too old fashioned to apply without modification.

We propose modified art therapy recommendation to enhance the previous expert system. Table 1 presents CES-D that consists of 20 questions.

Table 1. Center for Epidemiologic Studies Depression Scale

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

During the Past Week				
	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I did not feel like eating; my appetite was poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I felt that I could not shake off the blues even with help from my family or friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....The rest is omitted.....				
<p>SCORING: zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column. The scoring of positive items is reversed. Possible range of scores is zero to 60, with the higher scores indicating the presence of more symptomatology.</p>				

2 Proposed Art Therapy

Center for epidemiologic studies depression scale generate seven symptom category that is measured by answers from 20 Questions [7]. As shown in Table 2, five Jackson Pollock's art therapy can correspond to each symptom. In case of multiple symptoms, multiple art therapy can be recommended.

Table 2. Modified knowledge base

Condition	Conclusion
Sadness(Dysphoria): Question numbers 2,4, 6	THEN recommendation is portrait.
Loss of Interest(Anhedonia): Question numbers 8, 10	THEN recommendation is performance art.
Appetite: Question numbers 1, 18	THEN recommendation is performance art.
Sleep: Question numbers 5, 11, 19	THEN recommendation is dripping.
Thinking / concentration: Question numbers 3, 20	THEN recommendation is dripping.

Tired(fatigue): Question numbers 7, 16	THEN recommendation is dripping.
Movement(Agitation): Question numbers 12, 13	THEN recommendation is performance art.
Suicidal ideation: Question numbers 14, 15	THEN recommendation is all over painting

3 Evaluation

The previous work depends on the subject questionnaire of the therapist. However, the proposed rules depend on objective and verified test. CES and CES-D has been developed and verified through a number of clinical trials. Therefore, the proposed method can provide more accurate and efficient art therapy.

4 Conclusion

Art therapy is one of the most popular therapeutic practice which uses art in order to deal with mental disease. We propose a modified Jackson Pollock's art therapy for Depression based on center for epidemiologic studies depression scale to enhance the effect of the art therapy. Since legacy Jackson Pollock's art therapy does not match 7 symptom category in center for epidemiologic studies depression scale, it cannot be directly applied. The proposed art therapy is modified to utilize center for epidemiologic studies depression scale for an expert system.

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