

ABSTRACT

Affective disorder is a disorder characterized by symptoms of mood swings (mood) or affect, leading to depression caused by both internal and external factors. These affective disorders consist of bipolar and depressive affective disorders. Bipolar disorder is an episodic mental disorder characterized by manic and hypomanic symptoms. Early diagnosis of depressive disorders can be guided by PPDGJ III. The delay in recognizing affective disorders can cause the disorder to get worse. Therefore an application for the initial diagnosis of bipolar and depressive affective disorders was designed to assist the general public in carrying out initial examinations by utilizing one of the technological developments, namely the expert system by using the method forward chaining and certainty factor. Users will be asked to input yes or no answers to the consultation questions according to what is felt by the user, the system will then process input by using the method forward chaining and certainty factor. Method Forward chaining will work by matching symptom user input with interference based rule. Then the certainty calculation will be carried out using the certainty factor to provide the confidence (accuracy) value of the diagnosis. The final result of the application that is made is to display the results of a diagnosis in the form of a disorder and a description of what disorder is being suffered by the user based on the perceived symptoms. This application has been tested using a confusion matrix which produces recall 100%, precision 96.6%, and F1 Score by 98%. This application only provides an initial diagnosis, does not provide solutions and healing, and this application has not yet been tested directly by experts.

Keywords: Expert system, affective disorder, Forward chaining, Certainty factor, Confusion matrix.