

## Effects of Forest Therapy on Depression among Healthy Adults □

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**Abstract :** Backgrounds: A clearer and comprehensive understanding of the effects of forest therapy on depression is needed for further refinements of forest therapy programs. The purpose of this study was to review the literature on forest therapy programs designed to decrease the level of depression among adults to evaluate current forest therapy programs. Methods: This literature review was conducted using various databases including PubMed, EMBASE, CINAHL, PsycArticle, KISS, RISS, and DBpia to identify relevant studies published up to January 2016. The two authors independently screened the full text articles using the following criteria: 1) intervention studies assessing the effects of forest therapy on depression among healthy adults ages 18 and over; 2) including at least one control group or condition; 3) being peer-reviewed; and 4) being published either in English. The Scottish Intercollegiate Guideline Network (SIGN) measurement tool was used to assess the risk of bias in each trial. Results: After screening current literature, a total of 14 articles (English: 6, Korean: 8) were included in the present review. None of the studies used randomized controlled (RCT) study design and the sample size ranged from 11 to 300. Walking in the forest and experiencing the forest using the five senses was the key component of the forest therapy that was included in all studies. The majority of studies used one-time intervention that usually lasted a few hours or half-day. The most widely used measure for depression was Profile of Mood States (POMS). Most studies used self-reported, paper-and-pencil tests, and only 5 studies used both paper-and-pencil tests and physiological measures. Regarding the quality assessment based on the SIGN criteria, only 3 articles were rated 'acceptable' and the rest of the 14 articles were rated 'low quality.' Regardless of the diversity in format and contents of forest therapies, most studies showed a significant effect of forest therapy in curing depression. Discussions: This systematic review showed that forest therapy is one of the emerging and effective intervention approaches for decreasing the level of depression among adults. Limitations of the current programs identified from the review were as follows; 1) small sample size; 2) a lack of objective and comprehensive measures for depression; and 3) inadequate information about research process. Futures studies assessing the long-term effect of forest therapy on depression using rigorous study designs are needed.

**Keywords :** forest therapy, systematic review, depression, adult

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