

Relative potencies of two phenylalkylamines found in the abused plant khat

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Abstract:

Cathinone and d-norpseudoephedrine are closely related phenylalkylamines isolated from View the MathML source (khat), a plant much abused for its stimulant properties. We have compared the potency of these two compounds on an operant behavioral procedure in rats. Both suppress fixed ratio 20 responding for food in a dose related manner. Cathinone was 7–10 times more potent and had a more rapid onset of action than d-norpseudoephedrine, although the duration of action of cathinone was shorter. The ability of these two compounds to produce amphetamine-like stereotyped movements was in concordance with this same relative potency and difference in duration of action. Comparison of the behavioral effects in rats with the pattern of stimulation reported for khat use by man suggests that cathinone may be the major CNS active component of *catha edulis*.

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