## This Week's Citation Classic

Zung W W K. A self-rating depression scale. *Arch. Gen. Psychiat.* **12:**63-70, 1965. [Duke Univ. Med. Ctr., Dept. Psychiatry, Durham, NC]

The need for assessing depression as an emotional illness in order to document its presence qualitatively and quantitatively led to: (1) formulation of an operational definition of depression as a psychiatric disorder, (2) its application by the construction of a rating scale, (3) establishing its validity and reliability, and (4) use of the resulting measurement of depression in research and clinical settings. [The Science Citation Index® (SCI®) and the Social Sciences Citation Index (SSCI™) indicate that this paper has been cited over 335 times since 1965.]

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"My interests from the beginning as a research investigator focused on depression as an emotional disorder in terms of: (1) How do we diagnose this illness? (2) How can we best assess changes in the severity of the illness when various treatment methods are used? (3) Are there physiological changes that can characterize this disorder? and (4) Can we relate the behavioral dysfunctions of depression to brain structure?

"The first step in the research procedure was to identify and select patients with this disorder, using previously agreed upon diagnostic criteria. I found that this was not a simple task and that there were many ways of diagnosing presumably the same disorder. The first task was to solve the dialectical dilemma and to find an agreement among diverse opinions as to what is a depressive disorder. By using the approach that

common characteristics are more commonly found, I reduced the hundreds of symptoms and signs to disturbances of four basic categories: (1) psychic-affective. physiological, (3) psychomotor, and (4) psychological. In addition, within each of the categories, specific symptoms/signs were selected on the basis of their heuristic value as a potentially testable brain function-structure relationship. For example, sleep is a physiological function which is disturbed in patients with depressive disorders. Sleep as a physiological process can be understood in terms of the sleep awake system regulated by specific systems of the CNS. Sleep can be researched in the psycho-physiology laboratory using all-night EEG. EOG. and EMG recordings. From this. specific characteristics of sleep disturbance were found for patients with depressive disorders, and which correlated highly with treatment intervention.

"Having decided as to the qualitative features of the diagnostic criteria, the next step was to apply this quantitatively. The goal was to construct a rating instrument based upon this operational definition that would fulfill the following: (1) be all inclusive with respect to symptoms of the illness, (2) be short and simple, (3) quantitate in addition to qualitate, and (4) be self-rated and indicate the subject's own responses at the time the scale is completed.

The resulting Self-rating Depression Scale or SDS proved to be useful in providing a measurement of depression. It has proven to be useful for others for the same purpose, but in different settings outside of research, such as in family practice, out-patient medical clinics, and mental health clinics."