

Endicott Work Productivity Scale

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Introduction

The Endicott Work Productivity Scale (EWPS) is a self-report instrument designed to measure how health and emotional difficulties interfere with a person's functioning at work. Developed by Jean Endicott and John Nee, the scale was created partly to detect changes that might occur during treatment, especially when symptoms affect productivity without causing complete absence from employment. The original discussion correctly identifies the EWPS as a 25-item questionnaire scored from better to worse functioning, but several points require clarification. The scale is not simply a measure of attendance, and its psychometric quality does not depend directly on a country's wage level. It assesses behaviors and experiences related to work performance. Its value depends on reliability, validity, responsiveness, appropriate interpretation, and the population in which it is used (Endicott & Nee, 1997).

Purpose and Structure of the EWPS

The EWPS contains 25 items describing problems that may reduce productivity during a defined recent period. Respondents rate how often each problem occurred on a five-point scale. Items address areas such as arriving late, missing work, working slowly, losing concentration, making mistakes, feeling indecisive, becoming distracted, avoiding interaction, or failing to complete tasks. Scores are summed, with higher totals indicating greater impairment. Although the instrument captures several dimensions of work functioning, it is usually interpreted as a total scale rather than as four formally independent diagnostic domains. The EWPS was designed to be brief enough for clinical studies and repeated measurement. It therefore offers a practical way to quantify presenteeism, meaning reduced performance while a person remains at work, as well as some attendance-related difficulty.

Work Productivity as a Clinical Outcome

Symptoms do not affect only personal comfort. Depression, anxiety, pain, fatigue, sleep disturbance, cognitive problems, and medication side effects can reduce concentration, pace, reliability, communication, and decision-making. A patient may attend work every day while functioning substantially below his or her usual level. Traditional outcomes such as symptom scores or days absent may therefore miss an important part of treatment benefit. The EWPS helps researchers examine whether clinical improvement translates into better occupational functioning. This is especially relevant when evaluating therapies intended to restore participation rather than merely

reduce symptoms. However, productivity is influenced by job demands, workplace support, autonomy, economic pressure, and organizational culture. A self-report scale can estimate perceived impairment, but it cannot by itself determine an employee's objective economic contribution.

Reliability

Reliability concerns the consistency of scores. Internal consistency examines whether items that are intended to reflect a common construct tend to vary together. In the original validation study, the EWPS demonstrated strong internal consistency, supporting the use of a total score. Test-retest reliability is also important when a person's condition is expected to remain stable, because a measure should not fluctuate substantially without real change. High reliability does not prove that the scale measures the correct concept; a questionnaire can measure the wrong thing consistently. Reliability estimates also vary across populations and languages. Researchers should therefore report reliability for the sample being studied rather than assuming that coefficients from the original development study automatically apply to every workplace, diagnosis, or cultural context (Evans, n.d.; Terwee et al., 2007).

Construct and Convergent Validity

Validity concerns whether score interpretations are supported by evidence. Construct validity can be examined by testing whether EWPS scores relate to other variables in theoretically expected ways. Greater work impairment should generally be associated with more severe symptoms, poorer social or occupational functioning, and worse ratings on related productivity measures. Convergent validity is supported when the EWPS correlates with instruments that assess similar aspects of work functioning, while discriminant evidence requires that it not merely reproduce unrelated constructs. Known-groups validity can be tested by comparing groups expected to differ, such as symptomatic patients and healthier community participants. Such evidence supports the scale, but no single correlation establishes validity permanently. Validity belongs to a particular use and interpretation of scores, not to the questionnaire as an abstract object.

Responsiveness to Change

One of the EWPS's intended advantages is sensitivity to change during treatment. A responsive instrument should register meaningful improvement or deterioration when a person's occupational functioning changes. In clinical trials, researchers may compare baseline and follow-up scores or evaluate whether change differs between treatment groups. Responsiveness is not identical to reliability. A scale can be highly stable but insensitive to improvement, or responsive but noisy. Interpreting change also requires attention to regression to the mean, natural symptom fluctuation, changing job conditions, and response expectations. Researchers should ideally report effect sizes,

confidence intervals, and clinically meaningful thresholds rather than presenting any numerical difference as important. Repeated EWPS scores are most informative when combined with symptom measures, treatment timing, and contextual information about the employee's actual work situation.

Cross-Cultural Adaptation

Translation requires more than replacing words from one language with another. A culturally adapted EWPS should undergo forward translation, expert review, back-translation, cognitive interviewing, and psychometric testing. Workplace behaviors may have different meanings where schedules, employment protection, supervisory relationships, or norms about self-disclosure vary. The Turkish validation literature is useful because it demonstrates the need to test a translated form with both clinical and community samples. However, wage levels do not directly determine psychometric properties. Economic conditions may affect how respondents interpret absence or reduced pace, but reliability and validity must be evaluated empirically. Researchers should examine measurement equivalence, item comprehension, response patterns, and whether score differences reflect actual impairment rather than differences in language or workplace norms (Uguz et al., n.d.).

Self-Report Strengths

Self-report instruments can capture difficulties that supervisors or administrative records cannot see. Employees know when they are struggling to focus, repeating work, delaying decisions, or using unusual effort to maintain normal output. They can also report impairment in jobs where output is difficult to count, such as teaching, caregiving, management, or creative work. A confidential questionnaire may detect problems before they lead to absence or disciplinary action. The EWPS is brief, inexpensive, and suitable for repeated administration. It can therefore complement clinical interviews and organizational data. Its patient-centered perspective is especially valuable in treatment studies, where the question is often whether the participant experiences improved ability to function. These advantages explain why the EWPS has been used in research involving mood disorders, other health conditions, and treatment outcomes.

Limitations of Self-Report

Self-report also creates limitations. Responses may be affected by memory, mood, fear of disclosure, social desirability, perceived job insecurity, or misunderstanding of the reference period. A depressed participant may evaluate performance more negatively, while another person may minimize problems to protect professional identity. Different jobs also create different opportunities for impairment. Working slowly may be highly visible in production work but difficult to assess in strategic or relational roles. The EWPS does not directly observe output quality, customer outcomes, safety events, or employer costs. It should therefore not be used as a stand-alone performance appraisal or disciplinary

instrument. In clinical and research settings, confidentiality and purpose must be explained clearly so that participants do not believe honest responses will automatically be shared with supervisors.

Scoring and Interpretation

The total score ranges from minimal reported impairment to severe reported impairment, but interpretation should not rely on a universal cut-off unless supported for the relevant population. A score is most meaningful when compared with the person's baseline, a suitable reference group, or another treatment condition. Researchers should specify how missing items are handled and avoid calculating a total when too many responses are absent. Because high scores can arise from different combinations of problems, item-level review may help identify whether the main difficulty involves attendance, pace, concentration, interaction, or task completion. Nevertheless, individual clinical decisions should not be based on a mechanical score alone. Interview data, job demands, symptom severity, medical history, and workplace circumstances are necessary for responsible interpretation.

Use in Psychopharmacology Research

The EWPS can be useful in evaluating psychopharmacologic treatment because medications for depression, anxiety, bipolar disorder, attention problems, or other conditions may affect occupational functioning. Improvement in symptoms may allow better concentration, attendance, and completion of tasks. Conversely, sedation, insomnia, restlessness, cognitive slowing, or other adverse effects may reduce work performance even when some symptoms improve. A well-designed study can administer the EWPS before treatment and at planned follow-up points, alongside validated symptom scales and adverse-effect monitoring. Randomization and a comparison group strengthen causal interpretation. However, a change in EWPS score cannot prove that medication alone caused the improvement, especially in uncontrolled practice where psychotherapy, workplace changes, recovery, and personal circumstances may also contribute.

Use with Individual Clients

In clinical practice, the EWPS may help initiate a discussion about how symptoms affect employment. A clinician can review patterns, identify tasks that have become difficult, and monitor progress over time. The scale may also support conversations about reasonable accommodations, gradual return to work, sleep, workload, treatment side effects, or referral to occupational health services. It should not replace a full assessment of safety, disability, or fitness for duty. High-risk occupations may require specialized evaluation because self-reported productivity does not establish whether a person can safely operate machinery, provide clinical care, or perform other regulated tasks. Used collaboratively, the EWPS can make occupational functioning visible and connect treatment goals with outcomes that matter to the client's daily life.

Comparison with Other Productivity Measures

Several instruments assess work impairment, including the Work Productivity and Activity Impairment questionnaire, the Work Limitations Questionnaire, the Stanford Presenteeism Scale, and the World Health Organization Health and Work Performance Questionnaire. These tools differ in length, recall period, scoring, disease specificity, and whether they estimate absence, presenteeism, limitations, or economic loss. The EWPS is notable for its broad behavioral item content and original use in treatment studies. No measure is universally best. Selection should depend on the research question, burden on respondents, psychometric evidence, language, and the type of work being studied. Comparing results across instruments requires caution because similarly named productivity constructs may be operationalized differently. Researchers should choose a scale before seeing results and explain why it fits the intended outcome (Kessler et al., n.d.; Koopman et al., 2002; Reilly et al., 1993).

Ethical and Organizational Considerations

Work-productivity data can be sensitive because employers may use health-related information in ways that affect promotion, job security, or stigma. Clinical researchers should obtain informed consent, limit access, and separate research data from personnel decisions. Organizations should avoid interpreting group averages as proof that particular employees are unproductive. The most constructive use of results is to identify treatment needs, workplace barriers, or patterns that can guide support. Productivity should also not be treated as the sole measure of a person's worth or recovery. Health care has obligations to reduce suffering and protect autonomy even when economic output does not change. Ethical use therefore requires transparency about why the EWPS is administered, who will see the data, and what consequences may follow.

Conclusion

The Endicott Work Productivity Scale is a practical 25-item self-report measure of health-related work impairment. Its strengths include brevity, sensitivity to everyday performance problems, and usefulness in repeated clinical or treatment assessments. Evidence supports its reliability and aspects of validity, but these properties should be confirmed for the language and population in which it is used. The EWPS can contribute to psychopharmacology research by showing whether symptom change is accompanied by improved occupational functioning, while also revealing possible treatment-related difficulties. It should not be treated as an objective measure of economic output or used alone for employment decisions. The most defensible application combines EWPS scores with clinical assessment, contextual information, and other outcome measures (Prasad et al., 2014).

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