

Comparing the Symptomatology of Post-Stroke Depression with Depression in the General Population: A Systematic Review

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Background

It remains unclear whether **Post-Stroke Depression (PSD)** has **distinct phenomenology** to depression in the general population.

Previous studies investigating phenomenological differences have focused on **comparing profiles of symptoms**, but this is one of **many possible methods**.

No review has yet integrated findings from multiple methodologies to understand this question.

Research Questions

Are there **population-level differences** in symptomatology between **PSD** and depression in the **general population**?

Design/Methodology

A search was completed for quantitative studies featuring synonyms of stroke and depression. Searched databases: Academic Search Complete, AMED, APA PsycInfo, CINAHL, MEDLINE, and OpenDissertations.

Studies were included if they contained a **quantitative comparison** of depression symptomatology between stroke and general population controls.

Extracted symptoms were **clustered** into higher-order **domains**:

Dimension	Example measures/items
Negative affect	PHQ-9 (down/depressed) PSE (depression, agitation, irritability, tension)
Anhedonia and apathy	PHQ-9 (loss of interest) BDI (lack of satisfaction, lost interest) PSE (flat, lost interest and concentration)
Negative cognitions	PHQ-9 (feeling bad about yourself) BDI (guilt, pessimistic, failure, self-hate, self-blame, punishment, body image)
Somatic features	PHQ-9 (sleep, tiredness, appetite, slowed) BDI (sleep, tiredness, appetite, weight, libido, somatic preoccupation)
Behaviours	BDI (work inhibition) PSE (self-neglect)
Cognitive impairment	PHQ-9 (concentration) MADRS (concentration) BDI (indecisiveness)
Emotional dysregulation	PSDS (catastrophic reactions, hyper-emotionalism, diurnal variations)
Anxiety	BAI total score PSDS (anxiety) PSD (social unease, worrying)
Suicidal ideation	PHQ-9 (thoughts of harm) BDI (suicidal thoughts/intent)

Results



Three methodologies were identified: comparisons of **symptom profiles**, comparisons of **strengths of correlations** of a symptom with depression, and **Differential Item Functioning**. Profile comparisons must have **controlled for overall severity**. Greater correlation strengths suggest more *centrality* of a symptom to depression. Positive IRT DIF suggests a symptom is indicative of the more severe end of depression.

The **directionality of findings** was used to **compare phenomenology**. Findings by methodology (when controlling for moderating factors i.e. study quality):

	Profile comparisons (comparative severity/prevalence)	Comparative correlation strengths
More severe/prevalent/ correlated with depression in stroke	Work inhibition, emotion dysregulation	Tentatively, low self-esteem
Equally severe/prevalent/ correlated with depression	Negative affect, somatic symptoms, negative cognitions, cognitive difficulty, anxiety, suicidal ideation	Insomnia
Less severe/prevalent/ correlated	Anhedonia/apathy	Fatigue, anxiety

There was one DIF study: feeling disliked and restlessness suggested comparatively severe depression in stroke and crying and appetite disruption indicated more severe depression in the general population group.

Discussion/Conclusions

Differences in crying and emotion dysregulation are thought to link to post-stroke emotionalism. Less correlated fatigue in stroke suggests post-stroke fatigue might load onto these items.

Findings of equal self-reported cognitive difficulty and somatic symptoms are surprising.

Findings of less prevalent/severe apathy in stroke requires further exploration.