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ORIGINAL ARTICLE

Assessing catastrophic thinking associated with debilitating mental health conditions

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ABSTRACT

Purpose: The present study examined the psychometric properties of the *Symptom Catastrophizing Scale* (SCS). The SCS items were drawn from the Pain Catastrophizing Scale but were modified to make them better suited to the context of debilitating mental health conditions that are not necessarily associated with pain. The number of items was reduced from 13 to 7, and the response scale was simplified.

Methods: The SCS was administered to individuals diagnosed with Major Depressive Disorder (MDD) ($N=79$) or with a chronic musculoskeletal (MSK) condition ($N=88$).

Results: Exploratory factor analyzes revealed single factor solutions of the SCS for both the MSK and MDD samples. The internal consistency of the SCS was good. The SCS was significantly correlated with measures of pain severity, depressive symptom severity and disability in both samples. Individuals with MDD scored higher on the SCS than individuals with MSK. The SCS was shown to be sensitive to treatment-related reductions in catastrophic thinking.

Conclusions: Preliminary analyzes suggest that the SCS is a reliable and valid measure of symptom-related catastrophic thinking associated with debilitating mental health conditions.

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KEYWORDS

Catastrophic thinking;
depression; pain; disability

► IMPLICATIONS FOR REHABILITATION

- Although catastrophic thinking has been identified as a risk factor for disability, current assessment tools are not well suited for individuals with debilitating mental health conditions.
- This paper describes a brief assessment instrument that can be used to assess catastrophic thinking in individuals with debilitating mental health conditions.
- The results of this study suggest that targeting catastrophic thinking might yield reductions in symptom severity and disability in work-disabled individuals with major depressive disorder.

Introduction

Catastrophic thinking has been identified as a risk factor for adverse health and mental health outcomes.[1–4] The bulk of research on the relation between catastrophizing and adverse health and mental health outcomes has been conducted on samples of individuals suffering from persistent pain.[5,6] In the context of pain, catastrophizing has been defined as an exaggerated negative *mental set* brought to bear during actual or anticipated pain experience.[6] Across a wide range of debilitating pain conditions, the results of cross-sectional and prospective studies have revealed that catastrophizing is associated with increased pain, depression and disability.[5–7]

Before its emergence in the pain literature, catastrophizing had been discussed primarily within the context of cognitive theories of depression. For example, in Beck's (1976) cognitive model of emotional disorders, catastrophizing is described as a "cognitive distortion" that contributes to the emergence of depressive symptoms. Beck et al. [8] proposed that "depressive schema" become activated after the occurrence of negative life events and to give rise to a variety of cognitive distortions, including catastrophizing. In Beck et al.'s cognitive model of depression,[8] catastrophizing is expected to bias information processing in such a manner as to

increase the likelihood of the development of depressive symptoms. Given the centrality of catastrophizing to cognitive models of depression, it is surprising that there has been little research examining the correlates or consequences of catastrophizing in individuals with a primary diagnosis of depression or in individuals at risk for depression.

A search of research on catastrophizing and depression reveals that there currently exists no measure of catastrophizing that is suitable for assessing catastrophic thinking in individuals with depression. To date, the majority of studies on catastrophizing have been conducted using the Pain Catastrophizing Scale (PCS). The PCS is a 13-item self-report measure where individuals rate the frequency with which they experience different pain-related catastrophic thoughts. Studies on the psychometric properties of the PCS reveal that the scale comprises three correlated factors that have been labeled rumination, magnification and helplessness.[9–11]

One limitation of the PCS is that the instructional set is worded specifically in relation to pain. Another limitation of the PCS is that its current length (13 items) limits its use as a screening instrument. Some screening procedures, such as those used in risk assessment by insurers, require measures that are short and can be administered in alternate formats such as by telephone.

Given the high internal consistency of the PCS, it might be possible to shorten the scale and simplify the response scale without negatively affecting its psychometric properties.

The present study examined the psychometric properties of a modified version of the PCS that could be suitable for individuals suffering from a wide range of debilitating health and mental health conditions. The instructional set of the original PCS was modified such that individuals were asked to respond to the scale items in relation to their "health or mental health condition". The number of items was reduced to 7, and the response scale was changed to a 3-point frequency scale. The psychometric properties of the Symptom Catastrophizing Scale (SCS) were examined in a sample of individuals who were work-disabled due to a depressive condition and a sample of individuals who were work-disabled due to a musculoskeletal (MSK) condition. The pattern of findings was compared to previous research using the original version of the PCS. Proceeding from previous research on catastrophizing and pain outcomes, it was expected that the SCS would have acceptable internal consistency, and that high scores on SCS would be correlated with symptom severity and disability. It was also predicted that the SCS would be responsive to change following treatment designed to reduce catastrophic thinking. Treatment-related changes in the SCS were expected to be associated with changes in pain, depression and disability.

Method

Participants

The sample was composed of 79 work-disabled individuals with depression and 88 work-disabled individuals with MSK pain. Data were gathered from the clinical files of consecutive referrals to a vocational rehabilitation service in Ontario, Canada. Criteria for data extraction included a primary diagnosis of 1) major depressive disorder (MDD) or 2) MSK disorder involving the spine. Individuals with a diagnosis of a co-morbid health or mental health disorder were not included in the study sample. All participants were receiving long-term disability benefits when they were referred to the vocational rehabilitation service. Information about participants' diagnoses was taken from the participants' long-term disability insurance files. Records were only retained for inclusion in the study sample if file review clearly indicated that the diagnoses of MDD and MSK were confirmed by a medical or mental health specialist.

Measures

Catastrophizing

The SCS is a seven-item measure designed to evaluate catastrophic thinking related to the experience of both health and mental health conditions. The seven items were drawn from the Pain Catastrophizing Scale (PCS; [9]) (items 1, 4, 5, 6, 9, 12, 13). The items included in the SCS were chosen on the basis of item analyses conducted on data sets used in previous studies using

the PCS. Only items that showed consistent significant relations with measures of pain severity, severity of depression and disability across data sets were retained.

The instructional set of the original PCS was modified such that individuals responded to the items with reference to their "health or mental health condition" instead of their "pain". The instructional set for the SCS is as follows:

Disabling health and mental health conditions can have profound effects on our lives. This scale was designed to assess how your health or mental health condition has affected your life.

Listed below are seven statements describing different thoughts and feelings that you might experience when you think about your health or mental health condition. Using the following scale, please indicate the degree to which you have these thoughts and feelings when you think about your health or mental health condition.

The response scale of the SCS was adapted from the 5-point frequency scale used in the PCS to a 3-point frequency scale with the anchors (0) never, (1) sometimes and (2) often. The seven items of the SCS appear in Table 1.

Depressive symptoms

The Patient Health Questionnaire-9 (PHQ-9) was used to assess depressive symptom severity.[12] Participants indicated how frequently they experienced nine symptoms of depression. The response scale consists of a 4-point frequency scale with the endpoints (0) "not at all" and (3) "everyday". PHQ-9 scores can range from 0 to 27 with higher scores indicating more severe depressive symptoms. The reliability and validity of this measure have been established in several different clinical samples.[13,14]

Pain severity

The McGill Pain Questionnaire Short-Form (MPQ-SF) was used to measure pain severity. Participants rated their current pain experience according to 11 sensory and 4 affective pain descriptors. The response scale consists of a 4-point frequency scale with the endpoints (0) "none" and (3) "severe". The measure has been shown to be reliable and valid in various clinical populations.[15,16] Participants also provided pain ratings on an 11-point Numerical Rating Scale (NRS) with the endpoints (0) "no pain" and (10) "excruciating pain".

Disability

To assess disability, five items were drawn from the Pain Disability Index.[17] The instructions of the PDI were modified such that individuals responded to the items with regards to their "health or mental health condition" as opposed to their "pain". The degree of disability in five domains of life (home responsibilities, social activities, recreational activities, occupational activities, self-care) was measured using 11-point scales with the endpoints (0) "no disability" and (10) "total disability". The internal consistency of the modified PDI ($\alpha = 0.81$) was similar to that reported for the original scale ($\alpha = 0.86$).[17]

Table 1. SCS items mean/SD/S/K.

Item #	MSK (N = 88)	MDD (N = 79)	<i>p</i>
SCS1 I become afraid that my condition will get worse.	1.41/0.67/−0.7/−0.5	1.70/0.46/−0.87/−1.2	0.002
SCS2 I feel I can't stand it anymore.	1.09/0.78/−0.16/−1.3	1.47/0.59/−0.62/−0.53	0.001
SCS3 I can't seem to keep (my condition/symptoms) out of my mind.	1.33/0.67/−0.50/−0.73	1.59/0.51/−0.67/−0.92	0.005
SCS4 There is nothing I can do to reduce the intensity of my symptoms.	0.88/0.74/0.20/−1.1	1.25/0.56/−0.01/−0.36	0.001
SCS5 I wonder whether something serious may happen.	1.00/0.75/0/−1.0	1.37/0.58/−0.26/−0.69	0.001
SCS6 My symptoms are awful and I feel that they overwhelm me.	1.18/0.73/−0.30/−1.0	1.62/0.48/−0.50/−1.7	0.001
SCS7 I worry all the time about whether my symptoms will end.	1.36/0.74/−0.70/−0.85	1.71/0.51/−1.5/1.4	0.001

MSK: Musculoskeletal Disorder; MDD: Major Depressive Disorder; SD: Standard deviation; S: Skewness; K: Kurtosis.

Procedure

The Research Ethics Board at McGill University Health Center approved the study protocol. The study was conducted using data drawn from clinical files of individuals referred for evaluation at the Center for Rehabilitation and Health, Toronto, Canada. Completion of the SCS, PHQ-9, MPQ-SF and the disability measure was part of a standard client evaluation protocol.

A portion of the sample (MDD=40, MSK=36) was enrolled in a 10-week risk-targeted activity re-integration intervention. The primary objective of the intervention was to enhance rehabilitation progress by reducing psychosocial barriers and encouraging reintegration into life-role activities and return-to-work. Catastrophizing was one of the psychosocial barriers targeted by the intervention. The intervention included various techniques aimed at reducing catastrophizing, such as empathic reflection, guided disclosure, thought monitoring, problem solving and goal setting.[18] These techniques were incorporated within the framework of an activity-reintegration program that focused on activity resumption using structured activity scheduling and graduated resumption of discontinued activities. Clinicians met with participants once per week for a total of 10 weeks. The SCS, PHQ-9, MPQ-SF and the disability measure were completed as part of a screening evaluation prior to the intervention and again at the termination of the intervention. Comparisons of SCS scores from before and after the intervention were used to conduct sensitivity analyzes. The risk-targeted activity re-integration intervention in which participants were enrolled is described in more detail elsewhere.[19]

Data analysis

Descriptive statistics were computed for all study variables. T-tests for independent variables were used to compare the MDD and MSK groups on all study variables. Exploratory factor analysis was used to examine the underlying structure of the SCS. Cronbach's alpha was calculated on the SCS for both patient groups (MDD and MSK). Correlational analyzes were used to assess the relationship between the SCS and pain severity, depressive symptoms and disability. T-tests for paired variables were used to assess the sensitivity of the SCS to treatment-related reductions in symptom catastrophizing in individuals who took part in the risk targeted activity re-integration program.

Results

Sample characteristics

Demographic information, means and standard deviations on all study variables for the MSK and MDD groups are presented in Table 2. Means and standard deviations on the measures of pain severity and depression for the MDD and MSK samples were similar to those that have been described in prior research.[20–22]. Based on scores on the MPQ-SF and the PHQ-9, the MSK sample would be characterized as experiencing pain of moderate severity and depressive symptoms of mild severity; the MDD sample would be characterized as experiencing moderately severe depressive symptoms and pain symptoms of mild severity.

T-tests for independent samples were computed to compare the MDD and MSK groups on measures of pain severity, depressive symptom severity, disability and catastrophizing (Table 2). As anticipated, the MSK sample rated their pain as more severe ($M_{MPQ-SF} = 17.2$, $SD = 10.8$) than the MDD sample ($M_{MPQ-SF} = 11.8$, $SD = 8.4$), $t(165) = 3.6$, $p < 0.001$. The MDD sample reported more

Table 2. Sample characteristics.

Variables	MSK (N = 88)	MDD (N = 79)	p
Age	47.5 (9.2)	46.5 (8.8)	ns
Sex (F/M)	49/38	51/28	ns
Duration (months)	17.4 (11.4)	16.9 (9.4)	ns
MPQ-SF	17.2 (10.8)	11.8 (8.4)	0.001
Pain NRS (0–10)	5.49 (2.5)	4.05 (2.3)	0.001
PHQ-9	14.5 (7.3)	19.0 (5.4)	0.001
DISAB	33.1 (9.7)	35.4 (8.2)	ns
SCS	8.2 (3.9)	10.7 (2.6)	0.001

Numbers in parentheses are standard deviations.

Duration: Duration of work-disability; MPQ-SF: McGill Pain Questionnaire – Short Form; Pain NRS: Pain Numerical Rating Scale; PHQ-9: Patient Health Questionnaire; DISAB: Disability Index; SCS: Symptom Catastrophizing Scale.

severe depressive symptoms ($M_{PHQ-9} = 19.0$, $SD = 5.4$) than the MSK sample ($M_{PHQ-9} = 14.5$, $SD = 7.3$), $t(165) = -4.4$, $p < 0.001$. For the SCS, the MDD sample ($M_{SCS} = 10.7$, $SD = 2.6$) also scored higher than the MSK sample ($M_{SCS} = 8.2$, $SD = 3.9$), $t(165) = -4.7$, $p < 0.001$. Participants in the MDD ($M_{DISAB} = 35.4$, $SD = 8.2$) and MSK ($M_{DISAB} = 33.1$, $SD = 9.7$) groups did not differ significantly in their ratings of disability, $t(165) = -1.6$, $p = 0.104$.

Structure of the SCS

Exploratory Factor Analyzes (EFA, maximum likelihood) were used to explore the underlying structure of the SCS. Separate analyzes were conducted for the MSK and MDD samples. For the MSK sample, the Kaiser–Meyer–Olkin analysis yielded an index of 0.89, and the Bartlett's test of sphericity was significant $\chi^2(21) = 292.83$, $p < 0.001$. For the MDD sample, the Kaiser–Meyer–Olkin analysis yielded an index of 0.84, and the Bartlett's test of sphericity was also significant $\chi^2(21) = 158.16$, $p < 0.001$. The results of these analyzes indicate that the distribution of SCS data for both the MSK and MDD samples met the psychometric criteria for EFA. Factor extraction criterion was set at an eigenvalue greater than 1. For the MSK sample, the results of the EFA yielded a single factor solution with an eigenvalue of 4.2, accounting for 53% of the total variance. For the MDD sample, the results of the EFA yielded a single factor solution with an eigenvalue of 3.9, accounting for 40% of the total variance. Examination of the scree plots for both samples also suggested that a single factor solution best characterized the underlying structure of the SCS. For both the MSK and MDD samples, items with the highest factor loadings corresponded to items from the helplessness subscale of the PCS. Factor loadings are presented in Table 3.

Reliability of the SCS

Cronbach's alpha for the SCS was .81 for the MDD sample and 0.89 for the MSK sample. The item-total correlations for the MSK sample varied between 0.62 and 0.75. The item-total correlations for the MDD sample varied between 0.45 and 0.72.

Construct validity

Previous research has demonstrated relationships between (pain-related) catastrophic thinking and increased pain, depression and disability.[6] As shown in Table 4, the construct validity of the SCS was supported by significant correlations between the SCS, and the severity of pain, depression and disability for both the MSK and MDD samples. Moderate effect sizes were associated with the relationship between the SCS and symptom severity (pain and depression) in both samples. The effect sizes for the association

Table 3. SCS Factor loadings for MSK and MDD samples.

Item #	MSK (N = 88)	MDD (N = 79)
SCS1 I become afraid that my condition will get worse. (M)	0.70	0.59
SCS2 I feel I can't stand it anymore. (H)	0.84	0.71
SCS3 I can't seem to keep (my condition/symptoms) out of my mind. (R)	0.70	0.81
SCS4 There is nothing I can do to reduce the intensity of my symptoms. (H)	0.75	0.61
SCS5 I wonder whether something serious may happen. (M)	0.72	0.71
SCS6 My symptoms are awful and I feel that they overwhelm me. (H)	0.81	0.81
SCS7 I worry all the time about whether my symptoms will end. (H)	0.84	0.67

The bracketed letters M (magnification), H (helplessness), and R (rumination) refer to the factors on which the original items of the Pain Catastrophizing Scale loaded.

Table 4. Correlations among measures of catastrophizing, symptom severity and disability.

	1	2	3	4	5
1. SCS	–	0.40*	0.28*	0.60**	0.61**
2. MPQ-SF	0.60**	–	0.70**	0.34*	0.12
3. Pain NRS	0.50**	0.73**	–	0.21	0.08
4. PHQ-9	0.72**	0.56**	0.41**	–	0.66**
5. DISAB	0.67**	0.65**	0.54**	0.54**	–

Correlations in the lower diagonal are from the MSK sample; correlations in the upper diagonal are from the MDD sample.

SCS: Symptom Catastrophizing Scale; MPQ-SF: McGill Pain Questionnaire – Short Form; Pain NRS: Pain Numerical Rating Scale; PHQ-9: Patient Health Questionnaire; DISAB: Disability Index.

* $p < 0.05$,

** $p \leq 0.001$.

between the SCS and disability were also in the moderate range for both the MSK and MDD samples.

Sensitivity to change

A subsample ($N = 76$) of the total sample completed a 10-week risk-targeted activity re-integration intervention and responded to the SCS once again at the conclusion of the intervention. It was anticipated that SCS scores would decrease from pre- to post-intervention measurement since the intervention included techniques aimed at reducing catastrophic thinking. In Table 5, the means and standard deviations on the SCS pre- and post-intervention are presented. SCS scores reduced significantly from pre- to post-intervention suggesting that the measure is sensitive to change in levels of catastrophizing. Specifically, SCS scores decreased by 28% in the MSK sample, $t(35) = 5.1$, $p < 0.001$ and by 38% in the MDD sample, $t(39) = 6.2$, $p < 0.001$. Reductions in SCS scores from pre- to post-intervention were also correlated with reductions in pain severity ($r = 0.33$, $p < 0.01$), depression ($r = 0.54$, $p < 0.001$), and disability ($r = 0.32$, $p < 0.01$).

Discussion

The aim of the present study was to evaluate the psychometric properties of the SCS. Our goal was to modify the PCS to create a measure that assesses catastrophizing in various clinical populations. The instructional set of the PCS was changed to make it applicable to individuals experiencing a variety of health and mental health conditions, not only pain.

As measured by the PCS, catastrophizing has been construed as having a multidimensional structure, comprising elements of rumination, magnification and helplessness.[11,23–25] The dimensional structure of the PCS was not reproduced with the SCS, either in the MSK or MDD samples. Rather, the results suggest that the SCS comprises only one factor. There are several reasons why the multi-dimensional structure of catastrophizing did not

Table 5. Sensitivity to change of the SCS.

	Initial assessment	Post-treatment assessment	%Reduction	p
MSK group ($N = 36$)	8.6 (3.2)	6.2 (3.0)	28%	0.001
MDD group ($N = 40$)	10.6 (2.4)	6.6 (3.4)	38%	0.001

Values in parentheses are standard deviations.

emerge in the principal components analyses of the SCS. First, the items of the PCS that were adapted for the SCS were chosen on the basis of their consistent relation with pain outcomes, not on the basis of their factor loadings. Had factor loadings been used as a criterion for inclusion in the SCS, the factor structure of the PCS might have been reproduced. It is also important to note that correlations among the subscales of the PCS are typically elevated and some research suggests that fit indices for a 3-factor solution are only slightly better than those of a single factor solution.[26] The majority of studies using the PCS have used only total scores in analyses as opposed to subscale scores, reflecting the view that catastrophizing can be construed as a unitary construct [27]. As such, the single factor structure of the SCS is not expected to impede its performance as a measure of catastrophic thinking.

For both the MSK ($\alpha = 0.89$) and MDD ($\alpha = 0.81$) samples, the SCS showed good internal consistency. The internal consistency of the SCS was comparable to the internal consistency of the original PCS ($\alpha = 0.87$).[9] The item total correlations were all above 0.40 suggesting that each item of the scale is contributing in a meaningful fashion to the overall score.

In a variety of pain populations, scores on the original PCS have been shown to correlate significantly with measures of depression (r range = 0.32–0.43), pain intensity (r range = 0.25–0.42), and self-reported disability (r range = 0.43–0.55).[28,29] Similar relations were found between the SCS and these measures in the present study. For the MSK sample, the SCS was significantly correlated with depression ($r = 0.72$), pain intensity ($r = 0.60$) and self-reported disability ($r = 0.67$). For the MDD sample, significant correlations also emerged but were marginally lower in magnitude; depression ($r = 0.60$), pain intensity ($r = 0.40$) and self-reported disability ($r = 0.61$). The SCS appears to measure the construct of catastrophizing similarly to the original PCS.

The SCS displayed good sensitivity to change. A portion of participants completed a risk-targeted activity re-integration intervention that incorporated techniques aimed at reducing catastrophizing. These techniques included empathic reflection, guided disclosure, thought monitoring and goal setting, which have been shown to support reductions in catastrophizing.[30,31] The subsample of participants who received the risk-targeted activity reintegration intervention showed significant reductions in their SCS scores. This finding suggests the potential use of the SCS in evaluating the effectiveness of interventions intended to target catastrophizing.

Interestingly, participants with MDD scored higher on the SCS than the participants with MSK. This is the first study to compare catastrophizing in individuals with health and mental health conditions. It is not clear why individuals with depression would score higher on a measure of catastrophizing than individuals with pain. One possibility is that, if as suggested by Beck et al. [8], catastrophizing is a cognitive precursor to depression, then a high preponderance of catastrophizing might be expected in depressed individuals. It has also been suggested that there exists substantive conceptual overlap between items on measures of catastrophizing and measures of depression.[32] However, the correlation between catastrophizing and depression was not higher in the MDD group than in the MSK, as might be predicted by cognitive precursor or conceptual redundancy explanations. Why depressed individuals would engage in more catastrophic thinking than individuals with a pain condition is a question that will need to be addressed by future research.

It is important to differentiate the SCS from other measures of related constructs, such as health anxiety and anxiety sensitivity.[33–35] Proceeding from the item content of the SCS, catastrophizing could be characterized as an exaggerated mental set brought to bear in the appraisal of the severity of one's symptoms, and a helpless orientation to managing these symptoms. Health anxiety has been conceptualized primarily in terms of a tendency to misinterpret bodily sensations and unclear health information.[33] Anxiety sensitivity has been conceptualized mainly as the belief that experiencing anxiety leads to illness, embarrassment or more anxiety.[34] Research has suggested that catastrophizing and anxiety sensitivity are related but distinct constructs that independently predict health outcomes.[36] For example, catastrophizing has been shown to predict postoperative pain severity, even after controlling for state anxiety.[37] Other work has differentiated the constructs by illustrating their differing effects. For example, one study found a relationship between catastrophizing and increased attention to pain, but did not find this relationship with anxiety sensitivity.[38]

Presently, the bulk of research in this area has focused on catastrophizing in relation to debilitating pain conditions. Previous research has shown that catastrophizing is a risk factor for delayed recovery and more severe disability in individuals with persistent pain. For example, studies have shown that individuals who catastrophize benefit less from rehabilitation interventions for chronic pain.[39] Furthermore, there is research to suggest that pain catastrophizing interferes with the effectiveness of pharmacological interventions for pain.[40–42] Catastrophizing has also been associated with longer periods of bed rest following the onset of MSK pain [43] and longer periods of work absence in individuals with MSK pain.[44] Numerous investigations have also shown a relation between catastrophizing and more severe pain-related disability.[2,28,45] It is possible that catastrophizing might have similar negative effects in individuals with depression.

To date, few studies have examined the role of catastrophizing in individuals with a primary mental health diagnosis of depression. The lack of research attention to the role of catastrophizing in depression is likely due, at least in part, to the absence of a reliable and valid measure of catastrophic thinking suitable for individuals who are experiencing depressive symptoms. The SCS might prove to be a useful instrument for investigating the role that catastrophizing plays in symptom severity and disability in individuals with depressive disorders. Research addressing the role of catastrophizing in the development, maintenance and recovery of depressive symptoms might point to new avenues of intervention that might lessen the burden of suffering and disability associated with depression.

Some degree of caution must be exercised in the interpretation of the study findings. First, data records were drawn from the clinical files of individuals referred to a vocational rehabilitation service. Only a minority of individuals with debilitating health or mental health conditions are referred for vocational rehabilitation services. In addition, all participants were receiving long-term disability benefits. These sample characteristics necessarily have implications for the generalizability of findings. The modest sample size also limited the nature of analytic procedures that could be applied to the data. Finally, many of the analyzes involving the SCS were cross-sectional, thus limiting the confidence that can be placed in any statements about the causal relations among catastrophizing, symptom severity and disability.

In spite of these limitations, the results suggest that the SCS is a reliable and valid measure of catastrophizing in individuals who are work-disabled due to MDD. The results also suggest that the relations among catastrophizing, symptom severity and disability that have been reported in individuals with pain are also evident in individuals with depression. The availability of a measure of catastrophizing permitting cross-disability comparisons might provide useful insights into the origins of catastrophizing, and the processes by which catastrophizing adversely affects health and mental health outcomes. In turn, such research might provide the empirical foundation for the development of more effective avenues of intervention for individuals suffering from debilitating health and mental health conditions.

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