

Dr. Marc Ross - Clinical Psychologist –  
Presents:

▼ **Mental Health  
Challenges/Opportunities  
for People with SCI**

# Mental Health Challenges for People with SCI

Together we will address issues of anxiety, isolation and depression that the SCI community faces on a regular basis.

Because the SCI community is a particularly vulnerable population, mental health concerns often directly impact our daily life. I want to touch on these points and offer ways to alleviate these mental burdens using CBT.

# Australian & New Zealand Journal of Psychiatry



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## Spinal Cord Injury and Mental Health

[Christine Migliorini](#), [Bruce Tonge](#), [George Taleporos](#)

First Published January 1, 2008 | Research Article | [Find in PubMed](#)  
<https://doi.org/10.1080/00048670801886080>

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### Abstract

**Objectives:** The aim of the study was to examine the mental health of adults with spinal cord injury living in the community

**Methods:** The study was a representative community cross-sectional cohort self-report survey, carried out in adults with traumatic spinal cord injury registered on the Victorian Spinal Cord Injury Register and adults with non-traumatic spinal cord injury attending a specialist non-traumatic spinal cord injury rehabilitation clinic. Participants (n=443) completed a self-report survey by internet, telephone or hard copy, which used reliable and valid measures of depression, anxiety and stress (Depression, Anxiety and Stress Scale) and post-traumatic stress disorder (Impact of Events Scale–Revised).

**Results:** Nearly half (48.5%) of the population with spinal cord injury suffered mental health problems of depression (37%), anxiety (30%), clinical-level stress (25%) or post-traumatic stress disorder (8.4%). Overall, there was a twofold or more increase in the probability of emotional disorders compared to the general population. Of those with one mental health disorder, 60% also had at least one other emotional disorder, representing a substantial 56% increase over the general population in the probability of comorbidity of psychopathology. Better health and time since injury were associated with decreasing the risk of psychopathology.

**Conclusion:** The results of the present study underscore the vulnerability of the population with spinal cord injury to emotional disorders. This study highlights the complexity of mental health problems experienced by

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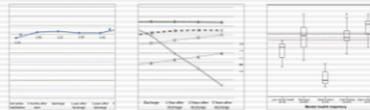
Conclusions

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Archives of Physical Medicine and Rehabilitation

Volume 93, Issue 12, December 2012, Pages 2170-2176



Original article

# Trajectories and Predictors of the Course of Mental Health After Spinal Cord Injury

Christel M. van Leeuwen PhD <sup>a, b</sup>, Trynke Hoekstra MSc <sup>c, d</sup>, Casper F. van Koppenhagen MD <sup>b</sup>, Sonja de Groot PhD <sup>e, f</sup>, Marcel W. Post PhD <sup>a, b, g, h</sup>

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## Abstract

van Leeuwen CM, Hoekstra T, van Koppenhagen CF, de Groot S, Post MW. Trajectories and predictors of the course of mental health after spinal cord injury.

## Objective

To study the course and predictors of mental health in the period between the start of active spinal cord injury (SCI) rehabilitation and 5 years after discharge. The hypothesis was that different mental health trajectories would be identified.

## Design

Multicenter prospective cohort study with measurements at the start of active rehabilitation, after 3 months, at discharge, 1, 2, and 5 years after discharge.

## Setting

Eight Dutch rehabilitation centers with specialized SCI units.

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RESEARCH ARTICLE

# Mental health in individuals with spinal cord injury: The role of socioeconomic conditions and social relationships

Carmen Zürcher, Hannah Tough, Christine Fekete , for the SwiSCI Study Group Published: February 20, 2019 • <https://doi.org/10.1371/journal.pone.0206069>

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## Abstract

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## Abstract

### Objectives

To evaluate socioeconomic inequalities in social relationships, and to assess whether socioeconomic conditions and social relationships are independently related to mental health problems in individuals with a physical disability due to spinal cord injury (SCI).

### Methods

We analyzed cross-sectional data from 511 individuals with SCI aged over 16 years who participated in the community survey of the Swiss SCI Cohort Study (SwiSCI). Indicators for socioeconomic conditions included years of formal education, household income, and financial strain. Social relationships were operationalized by three structural (partner status; social contact frequency; number of supportive relationships) and four functional aspects (satisfaction with: overall social support; family relationships; contacts to friends; partner relationship). General mental health was assessed by the Mental Health Inventory (MHI-5) of SF-36 and depressive symptoms were measured by the Hospital Anxiety and Depression Scale (depression subscale, HADS-D). Established cut-offs for general mental health problems (MHI-5  $\leq 56$ ) and depressive symptomatology (HADS-D  $\geq 8$ ) were used to dichotomize outcomes. Associations were assessed using logistic regressions.

### Results

Lower household income was predominantly associated with poor structural social relationships, whereas financial strain was robustly linked to poor functional social relationships. Financial strain was associated with general mental health problems and depressive symptomatology, even after controlling for social relationships. Education and household income were not linked to mental health. Poor structural and functional social relationships were related to general mental health problems and depressive symptomatology. Notably, trends remained stable after accounting for socioeconomic conditions.

### Conclusion

This study provides evidence for socioeconomic inequalities in social relationships as well as for independent associations of financial strain and poor social relationships with mental health problems in individuals with SCI. Further research may develop strategies to improve mental health in SCI by strengthening social relationships. Such interventions may be especially beneficial for individuals with low income and financial strain.

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# Psychological Morbidity and Chronic Disease Among Adults With Traumatic Spinal Cord Injuries

A Longitudinal Cohort Study of Privately Insured Beneficiaries

Mark D. Peterson, PhD, MS   • Neil Kamdar, MA • Anthony Chiodo, MD • Denise G. Tate, PhD

Published: April 13, 2020 • DOI: <https://doi.org/10.1016/j.mayocp.2019.11.029> •  Check for updates

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## Abstract

### Objective

To compare the longitudinal incidence of psychological morbidities and multimorbidity and estimates of chronic diseases among adults with spinal cord injuries (SCIs) as compared with adults without SCIs.

### Methods

Privately insured beneficiaries who had medical coverage at any time between January 1, 2001, and December 31, 2017 were included if they had an *International Classification of Diseases, Ninth Revision, Clinical Modification* diagnostic code for a traumatic SCI (n=6,847).

### Results

Adults with SCIs (n=6847) had a higher incidence of adjustment reaction (7.2% [n=493] vs 5.0% [n=42,862]), anxiety disorders (19.3% [n=1,322] vs 14.1% [n=120,872]), depressive disorders (29.3% [n=2,006] vs 9.3% [n=79,724]), alcohol dependence (2.4% [n=164] vs 1.0% [n=8,573]), drug dependence (2.3% [n=158] vs 0.8% [n=6,858]), psychogenic pain (1.0% [n=69] vs 0.2% [n=1,715]), dementia (6.5% [n=445] vs 1.5% [n=12,859]), insomnia (10.9% [n=746] vs 7.2% [n=61,722]), and psychological multimorbidity (37.4% [n=2,561] vs 23.9% [n=204,882]) as compared with adults without

[nature](#) > [spinal cord](#) > [articles](#) > [article](#)

Article | [Published: 21 January 2022](#)

# Psychological morbidity following spinal cord injury and among those without spinal cord injury: the impact of chronic centralized and neuropathic pain

[Mark D. Peterson](#) , [Michelle A. Meade](#), [Paul Lin](#), [Neil Kamdar](#), [Gianna Rodriguez](#), [James S. Krause](#) & [Elham Mahmoudi](#)

*Spinal Cord* **60**, 163–169 (2022) | [Cite this article](#)

160 Accesses | 409 Altmetric | [Metrics](#)

## Abstract

### Study design

Longitudinal cohort study of privately insured beneficiaries with and without traumatic spinal cord injury (SCI).

### Objectives

Compare the incidence of and adjusted hazards for psychological morbidities among adults with and without traumatic SCI, and examine the effect of chronic centralized and neuropathic pain on outcomes.

### Setting

Privately insured beneficiaries were included if they had an ICD-9-CM diagnostic code for traumatic SCI ( $n=9081$ ). Adults without SCI were also included ( $n=1,474,232$ ).

### Methods

Incidence of common psychological morbidities were compared at 5-years of enrollment.

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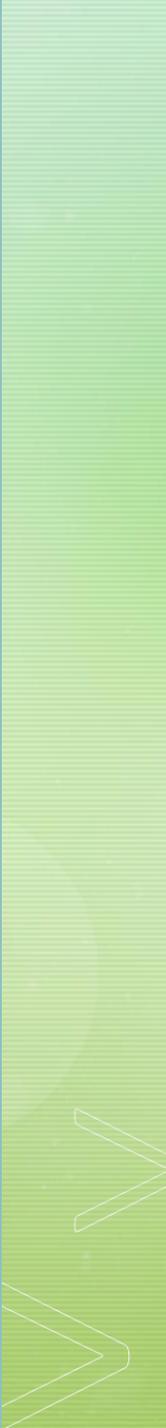
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## The takeaway...

- Adults living with spinal cord injuries have a near-80% increased risk of developing psychological conditions, such as depression and anxiety, compared to people without the traumatic injury. But chronic pain, isolation, financial burdens and inequalities may have an equally large, negative effect on mental health.
- 

# The need for mental health support and tools for those with SCI

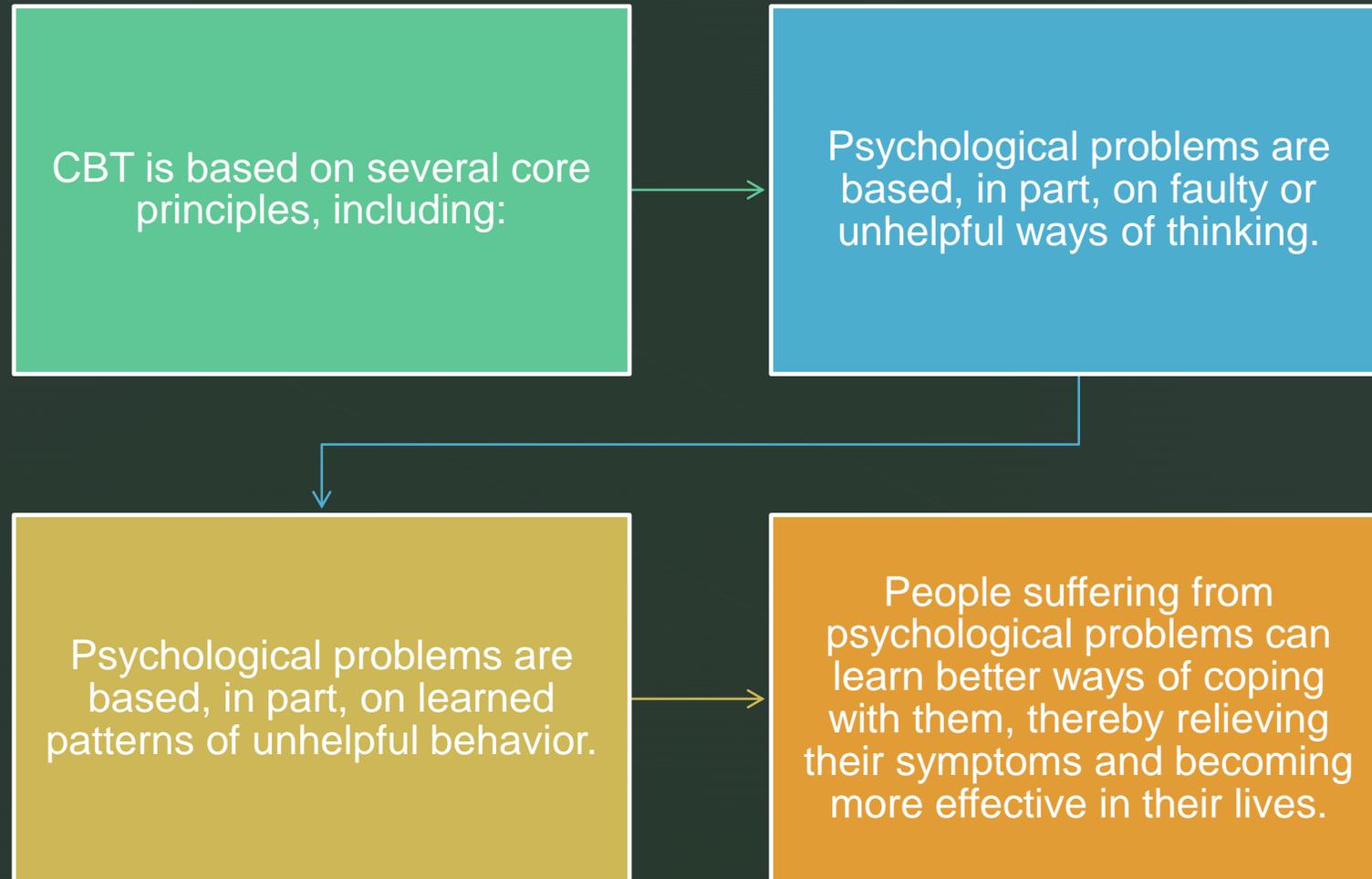
- Although the research on mental health challenges for people with spinal cord injury is growing and indicates clearly that we are at much higher risk for developing psychological conditions than the general population, this ultimately means that we need to be vigilant about the importance of mental health support / tools in order to manage this vulnerability.



# Different approaches to psychotherapy

- Approaches to psychotherapy fall into five broad categories:
- **Psychoanalysis and psychodynamic therapies.** This approach focuses on changing problematic behaviors, feelings, and thoughts by discovering their unconscious meanings and motivations.
- **Behavior therapy.** This approach focuses on learning's role in developing both normal and abnormal behaviors.
- **Cognitive therapy.** Cognitive therapy emphasizes what people think rather than what they do.
- **Humanistic therapy.** This approach emphasizes people's capacity to make rational choices and develop to their maximum potential. Concern and respect for others are also important themes.
- **Integrative or holistic therapy.** Many therapists don't tie themselves to any one approach. Instead, they blend elements from different approaches and tailor their treatment according to each client's needs.

# What is cognitive behavioural therapy?



## THOUGHTS

What we **think** affects  
how we feel and act

# CBT

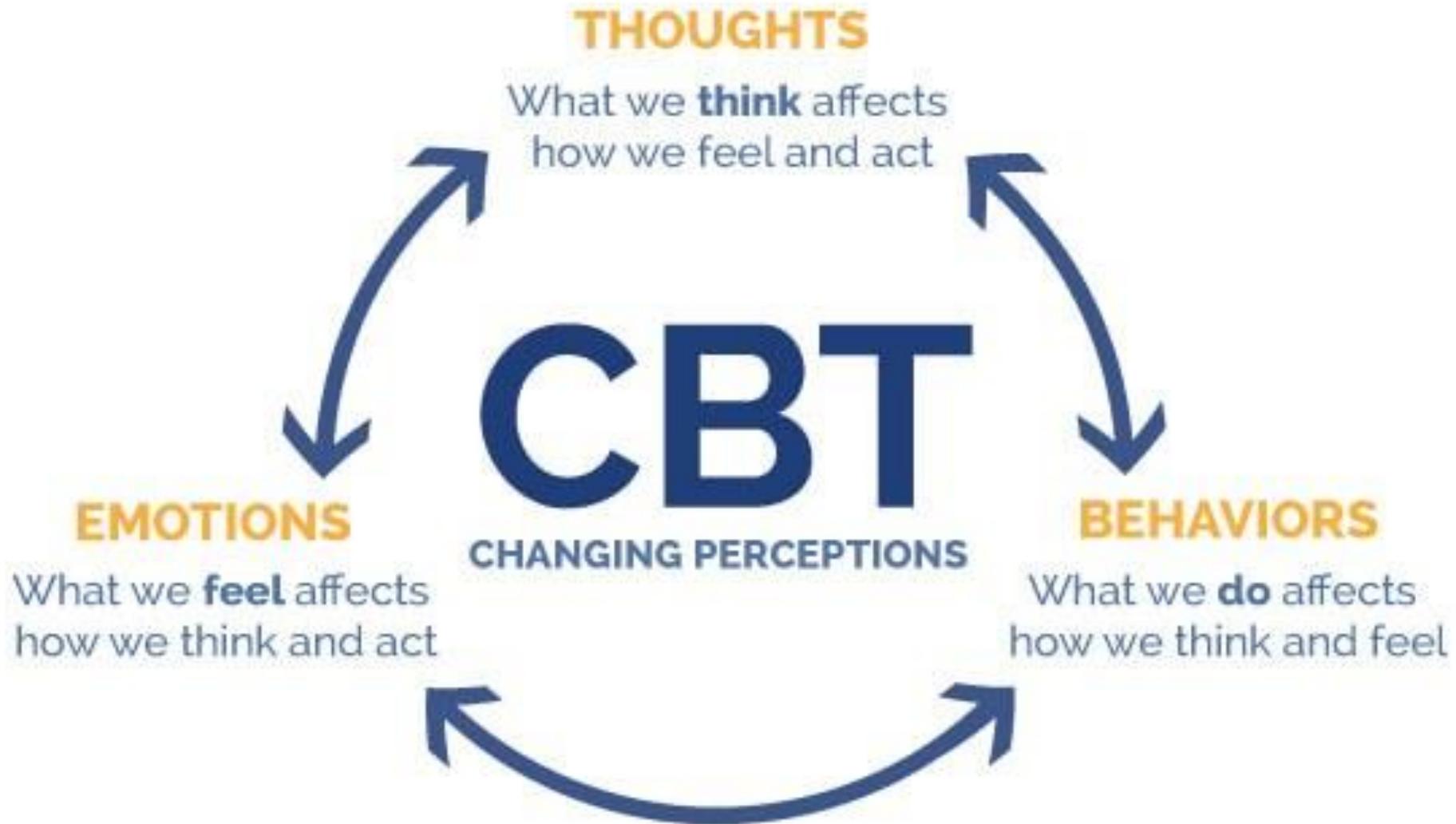
CHANGING PERCEPTIONS

## BEHAVIORS

What we **do** affects  
how we think and feel

## EMOTIONS

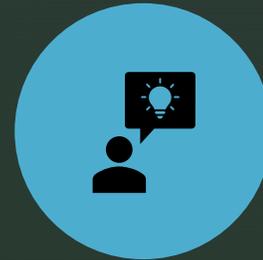
What we **feel** affects  
how we think and act



# ▶ Cognitive distortions



All cognitive distortions are:



Tendencies or patterns of thinking or believing;



That are false or inaccurate;



And have the potential to cause psychological damage.

# Common distortions or “thinking traps”



## All-or-Nothing Thinking

Also known as “Black-and-White Thinking,” this distortion manifests as an inability or unwillingness to see shades of gray. In other words, you see things in terms of extremes – something is either fantastic or awful, you believe you are either perfect or a total failure.





## Overgeneralization



This sneaky distortion takes one instance or example and generalizes it to an overall pattern. For example, a person with SCI who suffers from a bowel accident might generalize this to being a shameful person etc. Overgeneralizing can lead to overly negative thoughts about yourself and your environment based on only one or two experiences.



## Negative Filter



Recognizing only the negative aspects of a situation while ignoring the positive. One might receive many compliments on how well they are coping with their injury, but focus on a single piece of negative feedback.



The mental filter can foster a decidedly pessimistic view of everything around you by focusing only on the negative.



## Jumping to Conclusions – Mind Reading or “fortune-telling”



This “Jumping to Conclusions” distortion manifests as the inaccurate belief that we know what another person is thinking. Of course, it is possible to have an idea of what other people are thinking, but this distortion refers to the negative interpretations that we jump to.



For example, going to the mall in your wheelchair and assuming that everyone is looking at you with negative judgment is an example of this distortion.



## Catastrophizing



The cognitive distortion of catastrophizing is pretty much what you might think it is: making something into a catastrophe when it's not. When we catastrophize, we tell our selves that something is so awful, so terrible, that we won't be able to handle it. That we will fall apart or die.



The more we tell ourselves the problem we are facing is a catastrophe, the more hopeless and helpless we will feel to effectively cope with it. For example, "I'm late for an appointment and therefore the whole day is a mess, I'm a mess, life is a mess."



## Should Statements



Another distortion is the tendency to make “should” statements. Should statements are statements that you make to yourself about what you “should” do, what you “ought” to do, or what you “must” do. They can also be applied to others, imposing a set of expectations that will likely not be met.



“I should be feeling better.”

## Labeling and Mislabeling

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graph TD; A[Labeling and Mislabeling] --> B[The tendency in which we assign judgments of value to ourselves or to others based on one instance or experience.]; B --> C[For example, a person with SCI who uses the term "loser" to describe themselves. Or "weak" or "broken" etc. Mislabeling refers to the application of highly emotional, loaded, and inaccurate or unreasonable language when labeling.];
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The tendency in which we assign judgments of value to ourselves or to others based on one instance or experience.

For example, a person with SCI who uses the term “loser” to describe themselves. Or “weak” or “broken” etc. Mislabeling refers to the application of highly emotional, loaded, and inaccurate or unreasonable language when labeling.



## Personalization



As the name implies, this distortion involves taking everything personally or assigning blame to yourself without any logical reason to believe you are to blame.



This distortion covers a wide range of situations, from assuming you are the reason a friend did not enjoy a night out, to the more severe examples of believing that you are the cause for every instance of moodiness or irritation in those around you.

So, what are we to do when we get caught up in thinking traps?

- Investigate, question, check the reality, challenge... ultimately, TELL ANOTHER STORY.

# Thought checking/challenging



Summarize a situation that bothered or upset you:



“Not being able to go to the mall and socialize with my friends because of difficulty travelling caused by SCI”

# Note feelings



How did you feel?



Angry, anxious, lonely,  
depressed, etc.



Rank those that apply on a  
scale from 0 to 100 e.g.  
Anxious 90



What thought or concern was going through your mind when you started to feel this way?



“This will never end... as if my life with a spinal cord injury isn't hard enough already - why does life have to be so unfair?”

Which distortions can you identify in your thought?

The distortions listed include

All-or-Nothing Thinking; **Overgeneralizing**; Discounting the Positive; Jumping to Conclusions; **Catastrophizing**; Should Statements; Labeling and Mislabeled; Personalization.

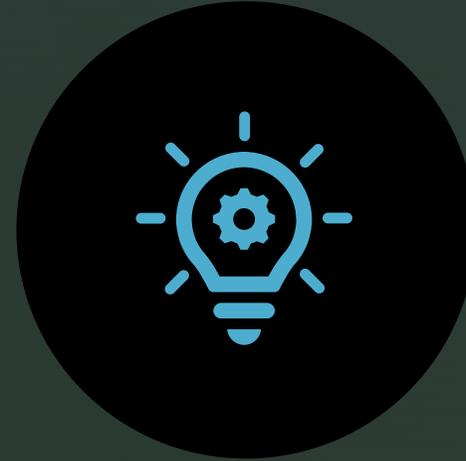
What is another way to think about the situation (without distortions)?



“There is no doubt that this is a challenging situation. But I have managed challenging times in the past. I’ll find a way through this.”



SITUATION: NOT BEING ABLE  
TO GO TO THE MALL AND  
SOCIALIZE BECAUSE OF  
DIFFICULTY TRAVELLING  
CAUSED BY SCI.



MODIFIED THOUGHT: THERE IS NO  
DOUBT THAT THIS IS A CHALLENGING  
SITUATION. BUT I HAVE MANAGED  
CHALLENGING TIMES IN THE PAST. I'LL  
FIND A WAY THROUGH THIS."

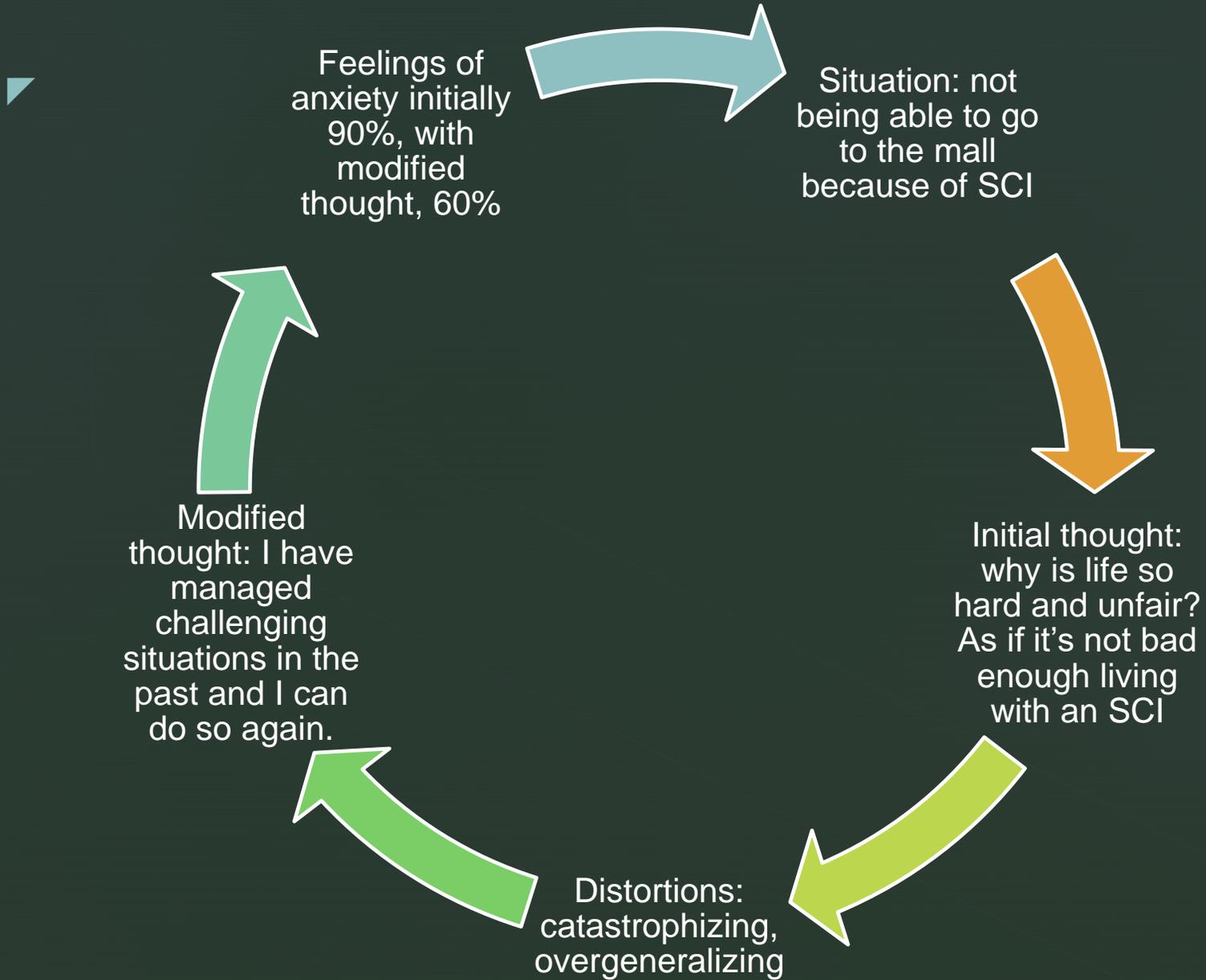


You said you felt **anxious**: how strongly do you feel this way now?

60

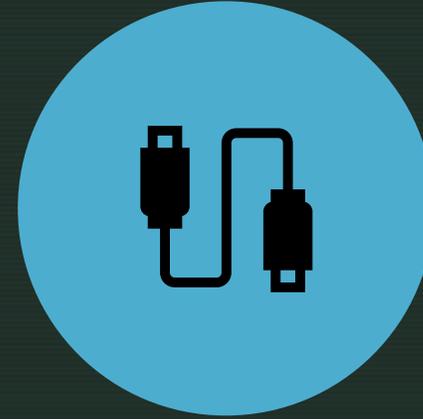
## This is not “think more positively.”

- We know what it’s like to get feedback from people that say: “just think more positively.”
- Rather than simply “positive thinking,” CBT is an invitation to question some of the assumptions and distortions that are part of the mental landscape. We all do it. Pretty much all the time!
- The underlying theory is that it’s worth taking some time to re-orient our thinking when we feel lousy for whatever reason.





MOODNOTES FOR  
IPHONE



MINDSHIFT FOR  
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# Other resources



<https://thiswayup.org.au>



Feeling Good: The New  
Mood Therapy - Book by  
David D. Burns



Looking for a therapist?  
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RESEARCH ARTICLE

# Fecal transplant prevents gut dysbiosis and anxiety-like behaviour after spinal cord injury in rats

Emma K. A. Schmidt, Abel Torres-Espin, Pamela J. F. Raposo, Karen L. Madsen, Kristina A. Kigerl, Phillip G. Popovich, Keith K. Fenrich, Karim Fouad

Published: January 15, 2020 • <https://doi.org/10.1371/journal.pone.0226128>

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## Abstract

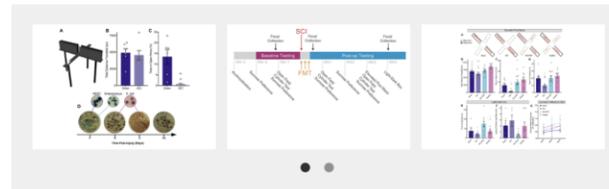
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## Abstract

Secondary manifestations of spinal cord injury beyond motor and sensory dysfunction can negatively affect a person's quality of life. Spinal cord injury is associated with an increased incidence of depression and anxiety; however, the mechanisms of this relationship are currently not well understood. Human and animal studies suggest that changes in the composition of the intestinal microbiota (dysbiosis) are associated with mood disorders. The objective of the current study is to establish a model of anxiety following a cervical contusion spinal cord injury in rats and to determine whether the microbiota play a role in the observed behavioural changes. We found that spinal cord injury caused dysbiosis and increased symptoms of anxiety-like behaviour. Treatment with a fecal transplant prevented both spinal cord injury-induced dysbiosis as well as the development of anxiety-like behaviour. These results indicate that an incomplete unilateral cervical spinal cord injury can cause affective disorders and intestinal dysbiosis, and that both can be prevented by treatment with fecal transplant therapy.

## Figures



**Citation:** Schmidt EKA, Torres-Espin A, Raposo PJF, Madsen KL, Kigerl KA, Popovich PG, et al. (2020) Fecal transplant prevents gut dysbiosis and anxiety-like behaviour after spinal cord injury in rats. PLoS ONE 15(1): e0226128. <https://doi.org/10.1371/journal.pone.0226128>

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