

Pain-related experiences, beliefs, expectations and their possible importance in assessment and management of Whiplash Associated Disorders, WAD

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Pain perception is predicted by cognitive and behavioral factors

- Thompson, et al (2010) found self-efficacy to be the strongest predictor of disability in patients with chronic WAD.
- Catastrophizing was a significant predictor of disability but weaker in comparison to functional self-efficacy (Thompson et al 2010).
- Growing evidence that low self-efficacy (Söderlund et al 2017), stronger fear avoidance beliefs (Buitenhuis et al 2011), unhelpful illness beliefs (Buitenhuis et al 2003), catastrophic thinking (Sullivan et al 2011) and low expectations of outcome (Caroll et al 2011) contribute to chronic disability following an acute whiplash injury.

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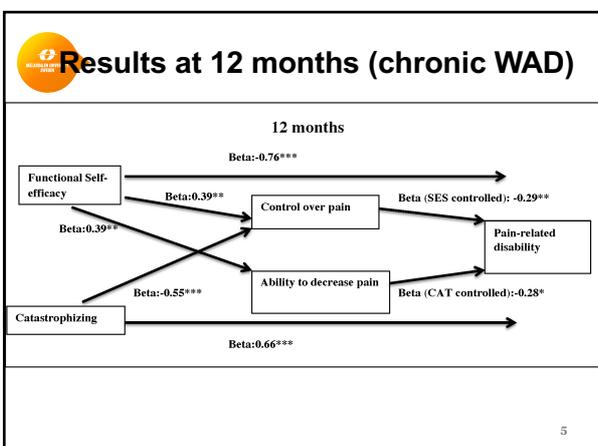
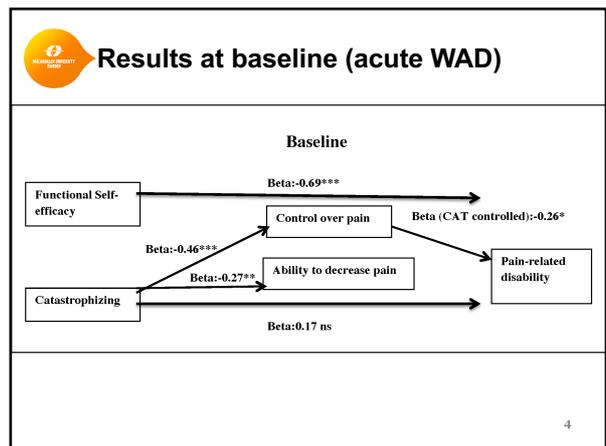
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Is self-efficacy and catastrophizing in pain-related disability mediated by control over pain and ability to decrease pain in whiplash-associated disorders?

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The study was designed to investigate if and how perceived control over pain, ability to decrease pain, functional self-efficacy, catastrophizing, and pain-related disability are integrated in the WAD context.



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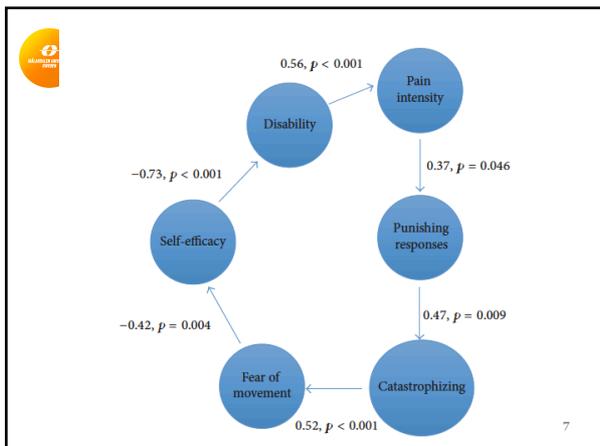
Research Article

The Relation between the Fear-Avoidance Model and Constructs from the Social Cognitive Theory in Acute WAD

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The aim was to exemplify the possible input from Social Cognitive Theory on the FA-model. Specifically the role of functional self-efficacy and perceived responses from significant others was studied.



Predictors before and after multimodal rehabilitation for pain acceptance and engagement in activities at a one-year follow-up for patients with Whiplash Associated Disorders, WAD – A study based on the Swedish Quality Registry for Pain Rehabilitation (SQRP)

Söderlund, A., Löfgren, M., Stålnacke, B-M

- The results showed that for engagement in activities and pain acceptance at one-year follow-up, the fear of movement appears to emerge as the strongest predictor, but patients' perceived reactions from their spouses need to be considered in planning the management of WAD.

Submitted

Pain perception is mediated by cognitive and behavioral factors

Adjustment to pain, disability, the use of coping strategies, post-traumatic stress symptoms and health-related quality of life in WAD are mediated by:

- negative pain beliefs such as catastrophizing
- fear avoidance or fear of movement
- depression
- functional self-efficacy
- punishing responses of significant others

These insights have not improved treatments outcomes for WAD.

Quantitative and qualitative studies highlighting patients' beliefs and expectations

- Previous research mostly by quantitative methods limiting the studies to beliefs specified by the researcher.
- Qualitative methods can reveal novel insights into participants' beliefs and could lead to new outcome variables and targeted treatment strategies.
- Opportunity to talk about their experiences reveal insights into patients' beliefs about pain not shown by a questionnaire.

Authors year	Country	Sample size	Mean age	Aim	Setting
Bostick et al 2012	Canada	17, 2 males	40.8	Explore experiences informing WAD-related pain beliefs	Physiotherapy and chiropractic clinics
Rydstad et al 2010	Sweden	9, 4 males	40.6	Explore patients' with long-term WAD experiences of participation, knowledge and strategies gained for handling daily occupations 1 year after rehabilitation.	Hospital day-care rehabilitation clinic

Authors, year	Country	Sample size	Mean age	Aim	Setting
Walton et al 2013	Canada	35, 11 males	44.3	Describe the meaning of being recovered as perceived by persons with long-term neck pain of traumatic origin	Physiotherapy and chiropractic clinics
Williamson et al 2015	United Kingdom	20, 8 males	43	Identify beliefs about pain and recovery in individuals with WAD.	Physiotherapy clinics

Bostick et al, 2012	Rydstad et al, 2010	Walton et al, 2013	Williamson et al, 2015
Control over pain	Strategies for managing pain	Absent, or at least manageable symptoms	It's up to me
Control over daily demands	Work resumption	Participation in valued life roles	Needing support
Ability to control one's pain	Support	Having the physical capacity one ought to have	Loss of confidence
Perceived severity of the injury/pain	Loss of hope	Autonomy and spontaneity	The need for realistic expectations
Treatment success	Loss of social roles	Re-establishing a satisfactory sense of self.	Unsure about the future
Interference and loss Stigma	Abandoned by those around	Feeling positive emotions	Movement is best
Understanding Incongruence	Changed self-image		Reasons not to move
Optimism Generally an optimist	New knowledge		Fitting it all in
	Hope		Optimism

Possible themes

- Self-efficacy in controlling the life situation
- Distancing from normalcy
- Existential uncertainty
- Understanding the pain
- Happiness
- The meaning of recovery

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Concluding remarks

- Caregivers should be sensitive to patients' beliefs of their pain problems.
- The importance of perceived punishing responses from a spouse/intimate partner and patients' functional self-efficacy, and in consequence these factors might also be valuable to consider in the treatment of WAD patients.
- Research on how people experience illness shows that the crisis it presents throws people out of their normal lives. Order becomes disorder, what they could control becomes uncontrollable (Charmaz 2000).
- Collecting and understanding, persons' experiences is necessary to ensure the relevance of outcome measures and developing effective management strategies.

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Ecological model– a framework for understanding patients' beliefs and expectations and developing interventions

Principles:

- Behaviors are influenced on multiple levels; intrapersonal, interpersonal, organizational, community and public policy levels
- There are interactional influences across levels; mediator and moderator variables and their effects
- Effective interventions in changing behavior should be developed on multiple levels; eg. Changing individual's beliefs reinforced by social support and environmental changes.
- Environmental contexts are important determinants of behavior; barriers or facilitators

• Thank you!



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