

Psychology of Injury: And the Dance Goes On

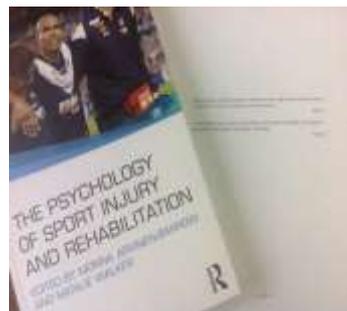


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Aims

- Opportunity to explore injury from a psychological and social perspective.
- Psychological factors related to injury onset
- Psychological responses to injury
- Effective strategies for injury prevention, rehabilitation, and full holistic recovery.
- Development of resilience and coping skills



Neck Strain

Wrist fracture/sprain

Posterior Tibial Tendonitis

Achilles Tendonitis

Posterior Ankle Impingement Syndrome

Lateral Ankle Sprain

Patellofemoral Pain Syndrome

Meniscus

Snapping Hip Syndrome

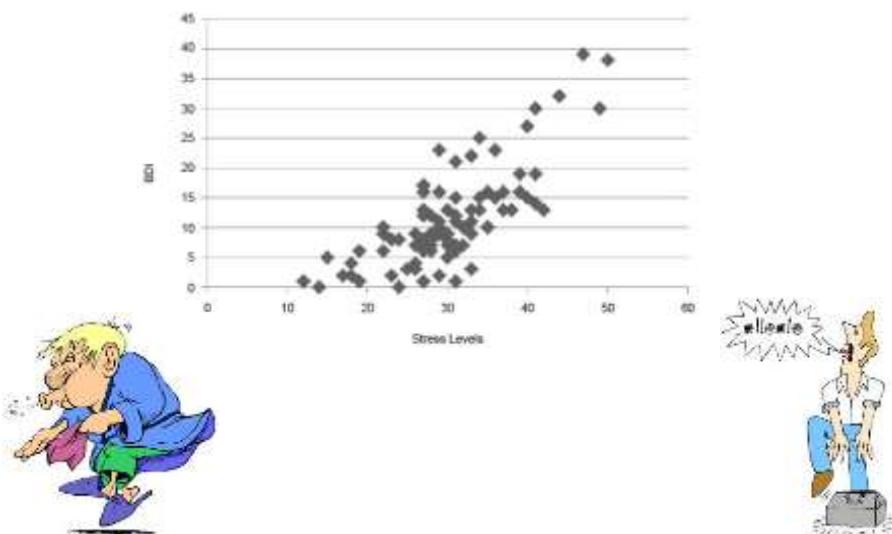
Back Strain/Spasms

Rotator Cuff Tendonitis and Impingement:

It is suggested that despite high injury incidence rates in dance, many go untreated by medical professionals.

Training environment, floor surface, shoe condition, and rehearsal schedule
Age, personality, fatigue, psychological stress, and social support

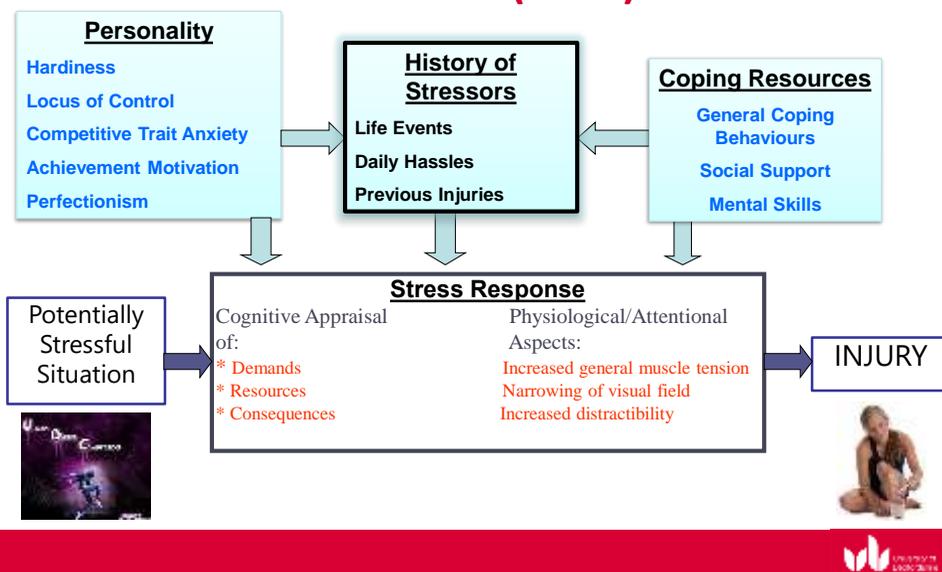
Psychological factors and injury onset risk



Why?



Theoretical Explanation – Williams & Andersen (1998)



Injury Strikes!



To survive and ascend, a dancer must be self-analytical and self-critical virtually to a fault. For dancers, dance is more than an art; it is an all-consuming lifestyle. The aesthetic, the technique, the teachers, and perhaps most importantly, the dancer must constantly push to exceed, to overcome, to persist and to persevere. The love of dance and desire to dance are intrinsic to dancers of all levels and talent. Many have sacrificed so much just to have those few moments of pure movement where the physical price was no measure of the artistic reward



Anecdotal/Research/Clinical accounts suggest:

- Continue to dance with injury, pain and discomfort
- Perhaps to avoid the “disruption of self” from injury
- Embedded subculture in dance that embraces injury, pain, and tolerance.

- Fear of being replaced in performance/losing income
- Pressure from choreographers, peers, and the dancers themselves to continue to rehearse and perform despite pain and injury



The impact of injury is far more than just physical; it can jeopardise confidence, self-esteem, and sense of identity (Brown, 2005).

If not addressed:

1. ...may not recover as expected!
2. ...may not adhere to rehab!
3. ...may not fully engage in rehab!
4. ...may not perform well during rehab/re-entry
5. ...may become re-injured/new injury immediately
6. ...may not re-enter!



Grief Response

- Kübler-Ross' (1969) Grief Response in terminally ill & bereaved
- “a mourning of loss” - of significant other/object

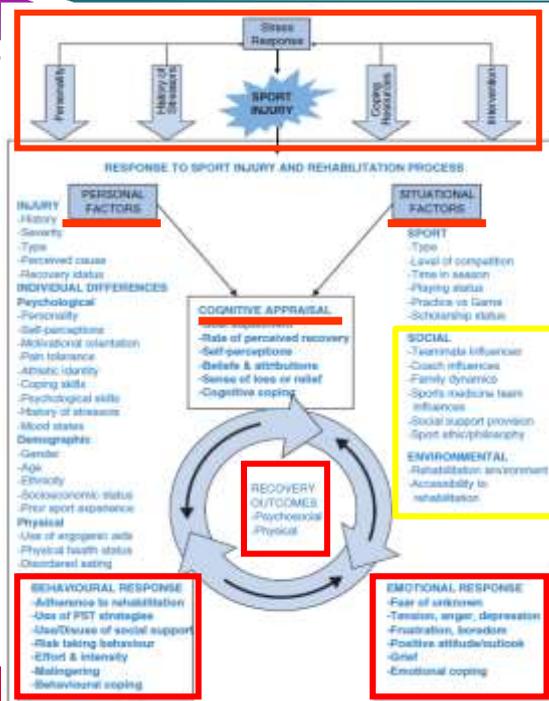
1. **Denial** - shock, can't believe it & down play it
2. **Anger** - once they accept it they become angry. Self; Cause; Unfairness
3. **Bargaining** - try to bargain with it - train differently etc
4. **Depression** - Realisation sets in & become depressed
5. **Acceptance** - Worked through depression & ready to face rehab



Integrated model of psychological response to sport injury and rehabilitation process

(Weise-Bjornstal et al., 1998)

Most accepted, well developed model, offering a good basis for further research (Andersen, White, & McKay, 2004; Evans, Hare & Mullen, 2006; Kolt, 2003; Udry & Andersen, 2003; Walker et al., 2007)



Responses to Injury

- Frustration, fear, distress, anger, and depression (Macchi and Crossman, 1996)
- Initial fear of the reaction of others (teachers, staff, parents, and other dancers), and what impact the injury would have on career.
- Watching class can provoke feelings of guilt and anger
- Reactions during rehab vary from optimism about resuming career..... to pessimism about the severity of the injury and time needed to recover

It is suggested that despite high injury incidence rates in dance, many go untreated by medical professionals.

- Mainwaring and Krasnow (2003) revealed a preponderance of negative emotions throughout the injury period
- Mix of anger, uncertainty, jealousy, frustration, anxiety, feelings of alienation, depression, guilt, self-doubt, disappointment, and fear
- Anger, guilt, and distress about watching others dance
- Continuation with movements that evoke pain
- Coping difficulties that resulted in psychotraumatic distress (x1 attempted suicide; depressive episodes and disordered eating x1)
- Bouts of self-mutilation



- Increased fatigue, decreased vigour and energy, and increased stress (secretion of urinary catecholamines - a measure of sympathoadrenal activity).
- Responses closely tied to time-specific onset of performance-related psychological and physical stress
- Tabet-Foxell and Rose (1995) - higher pain thresholds and tolerance than non-dancers
- *“the meaning of pain, the importance of acknowledging pain and of learning how to respond to it, should be targeted as early as possible in a dancer’s training.”*
- Regardless of skill or age are trained to cope with pain and injuries in a particular way



Pain and Overuse Injuries

- Living day to day with pain and discomfort wears on the body and psyche
- Likely that different coping styles or strategies are developed
- Suggested that persistent daily hassles are much more detrimental to the body's immune system than are acute bouts of stress



Take Home Messages from theory:

1. Provides clues to factors that might increase proneness
 2. Assist us in promoting effective coping
 3. Provides information to attempt to prevent adverse responses to injury disrupting rehabilitation and performance on return to training/competition/performance (Pargman, 1999).
 4. Assists us towards achieving 'holistic recovery'
- The key to a thorough understanding of psychology in an applied context is an appreciation of the theoretical underpinning (Cranney et al., 2009; Thompson, 2000)



Dealing with Injury

- Feel misunderstood?
- Feel inadequately treated by medical professionals/Able to seek treatment
- Feel a lack an appreciation of the dance world?



Interventions

1. Reaction to injury phase

- Cognitive appraisals/pain/lifestyle changes

2. Rehabilitation and recovery phase

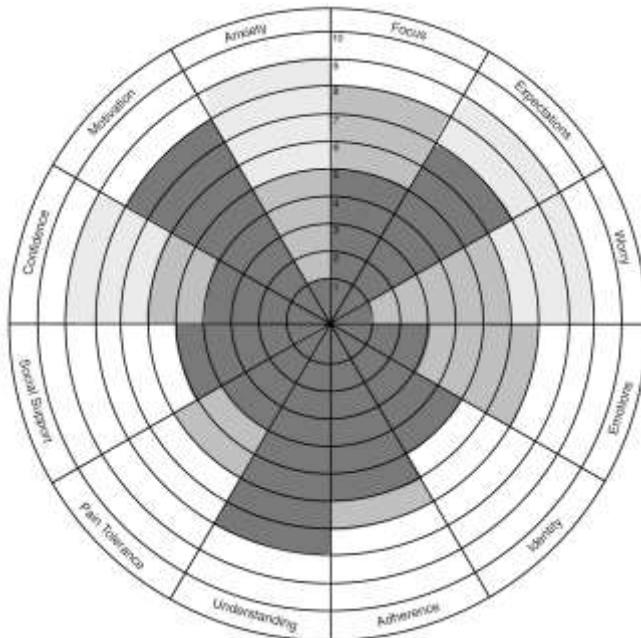
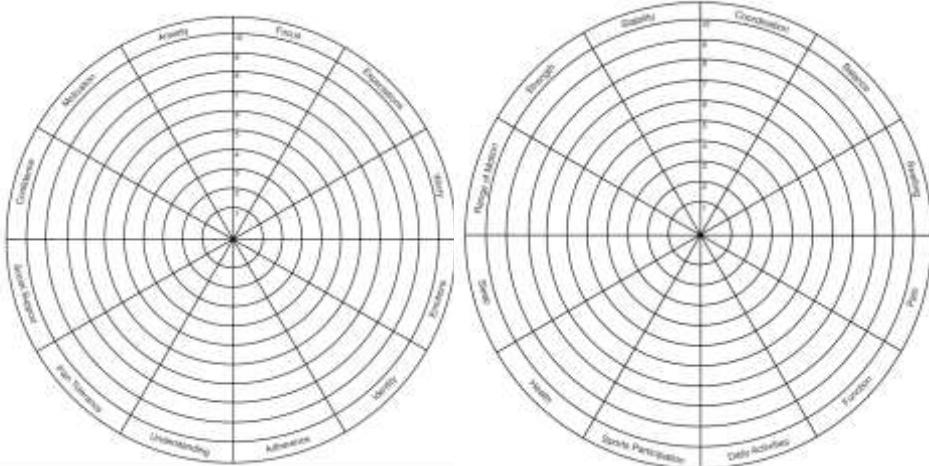
Strategies that promote rehabilitation adherence and treatment compliance, motivation on working hard, and highlight qualities of resilience

3. Reaction to return

- Ensuring full physical and psychological readiness to return
- Self-confidence issues and managing fears and anxieties of (re)-injury



Rehabilitation Profiling



Relaxation

1. Pain Management

- *correct breathing = chemical changes; endorphine release*

2. Reduce symptoms of stress/anxiety (pain enhancing)

- **Plus....**helps focus attention, enhance confidence, aid physical healing, & provides a sense of control over rehab.



b. Biofeedback

- Enables greater awareness of your autonomic nervous system and learning to control your physiological and autonomic responses by receiving physiological feedback not normally available
- Very useful as it is visual.
- Even better when paired with correct breathing techniques



Breath Control Techniques



But many of us do not breathe correctly!

Dancers advantage??

- Correct breathing is fundamental to achieving a relaxed state.
- Link between breathing and the system controlling our physiological arousal.
- Stimulation of the sympathetic nervous system (i.e., when anxious) leads to breaths that are short, shallow and irregular
- Stimulation of the parasympathetic nervous system is associated with smooth, deep and rhythmic breaths (Keable, 1989).



Example: Exploring Breathing



1. Lay on back (no postural effort needed from breathing muscles and organs shift so diaphragm has something to work against so it is easier to learn in this position) and take small breaths in via the nose and exhale out of the mouth letting air just fall out of the lungs (do not force it)
2. Gradually increase the size of your breaths until slow and deep (no holding of breath)
3. You should be taking a maximum 12 breaths (inhale-exhale) per minute.
4. Place the palm of your hands on the bottom of your ribs with the finger tips touching
5. On exhaling relax the abdomen, shoulders, and chest
6. Take in a big breath via the nose and notice what happens to the abdomen and ribs. (For many the chest will rise more than the abdomen)

N.B. It is also possible to use paper or plastic cups instead of using the hands for a more visual impact of current breathing patterns. Similarly it is possible to replicate this exercise standing. For example, in front of mirror without upper body clothing and place your hands flat against your stomach (palms on bottom of ribs with finger tips touching).

(Adapted from McConnell, 2011)



Ratio Breathing

- In nose ... count to 4



- Out mouth count to 7



(PNS)

Distracting thought

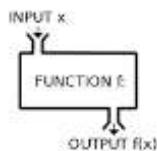
Gap in time
(Counting is a distraction)

Fist is what is happening when anxious/stressed/distracted!



I don't care whether the athlete says things about their recovery out loud or to themselves. For me the importance is what they are saying. They have to believe seeing their injury and recovery in a more positive light is far better than beating themselves up. Some find positive things to say to themselves and others need some help when they say really bad things to see a more positive view to the situation. I can help them with that, I like to challenge what they are thinking and saying about their injury.

(Sally, Sport Medicine Professional)



Reframing.



1. The key to reframing begins with awareness of the nature of the self-talk/thought.
2. Challenge these cognitions by reframing the appraisal to a more functional counter response.

Situation	Statement	Reframed Statement
Loss of motivation; coping with difficult and/or lengthy rehabilitation; anxieties about becoming re-injured during rehabilitation	“I can’t go on the board. I can’t balance. I’m going to fall off and twist it again.”	“I’ve balanced on an uneven surface. The board is no different. It’s just the same, I can do it!”

Those working with dancers:

- Educating and assisting better understanding: how to modify dance activities during rehab, still allows for improvement, and continuing verbal support and correction
- Giving dancer more say about the use of a temporary understudy replacement = reducing the fear that his or her part will be permanently lost.
- Assist in classes, coach other students outside class time, and assist in rehearsals
- Be mindful that watching performances is individual
- Giving readings and film/ video viewing to sustain interest and motivation, encouraging imagery work
- Engaging in discussions with medical personnel and family (making sure to include the dancer in these exchanges), and establishing realistic goals with the dancer AND with the medical personnel



Social Support!

- Peers, dance educators, dance companies, friends, choreographers, medical personnel, and loved ones can facilitate injury recovery by supporting the injured dancer.

