

An Introduction to the Pain-Disability Prevention (PDP) Program and the Progressive Goal Attainment Program (PGAP)

This following presentation provides a brief overview of two cost-effective, evidence-based disability reduction programs developed through the University Centre for Research on Pain and Disability.

University Centre for Research on Pain and Disability

**A Community-Based Intervention
for the Prevention of Pain-Related
Disability**



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The Pain Disability Prevention Program, or PDP, and the Progressive Goal Attainment Program, or PGAP, are time-limited, evidence-based programs designed to reduce psychosocial risk factors for chronic pain and disability. Recent clinical studies suggest that the PDP Program and PGAP significantly reduce pain-related disability and maximize return to work potential.

A community-based approach has been used in order to maximize accessibility of service and to keep treatment costs at a minimum.

Data presented at a meeting of health economists in Amsterdam in 2006 suggested that PGAP yields outcomes similar to multidisciplinary treatment centres, but at a 70% to 80% savings in treatment costs.

Community-Based Approaches to Managing Psychosocial Risk Factors for Pain and Disability



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The Problem of Pain and Disability in Modern Society

Millions of people sustain musculoskeletal injuries each year. Many others will develop health conditions that are associated with pain and disability. Some of these individuals will recover sufficiently to resume their social, recreational and occupational activities. Some will become permanently disabled.



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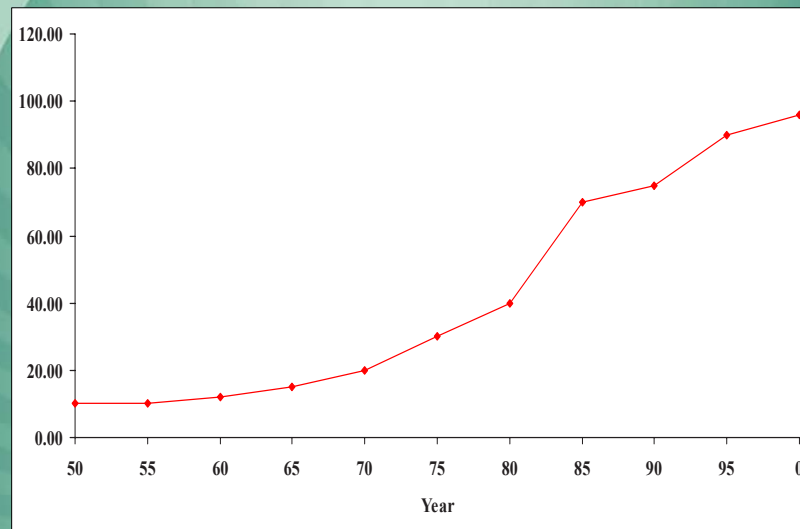
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A Growing Concern

This slide shows that the magnitude of the pain-disability problem has been increasing steadily over time. The graph shows the millions of days lost each year due to pain since 1950. In spite of relatively stable injury and illness rates, the duration of disability associated with pain continues to increase. In other words, injured workers remain off work for longer periods each year.

These data indicate that current approaches to the management of pain and disability have not been effective. It is clear that alternate approaches must be considered.

Days Lost Due to Back Pain from 1950 to 2000



What causes pain-related disability?

It was once believed that pain experience was the primary determinant of pain-related disability. Since pain experience was viewed as the primary determinant of pain-related disability, pain reduction was viewed as the best approach to reducing pain-related disability.

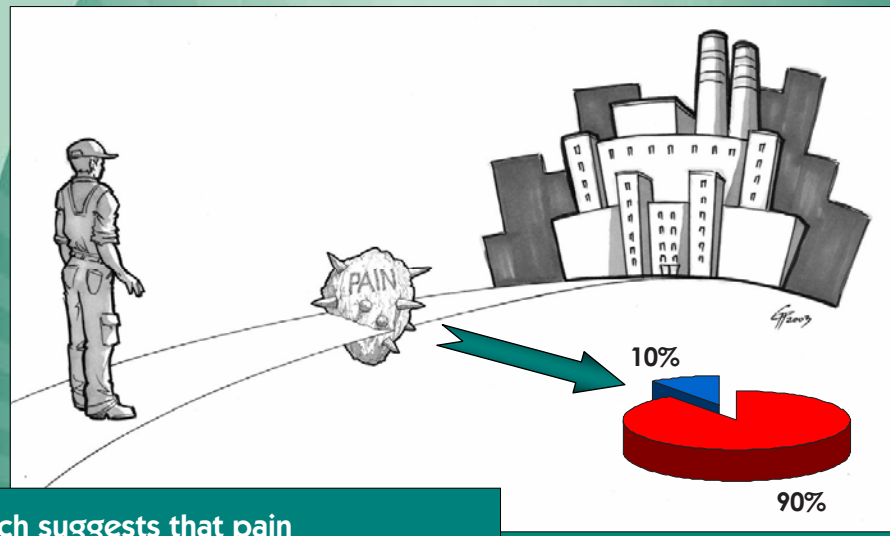
Pain as Primary Obstacle?



The need to consider other causes of pain-related disability

The results of numerous investigations suggest that pain symptoms explain only 10% of the variance in pain-related disability.

Pain only partially explains disability

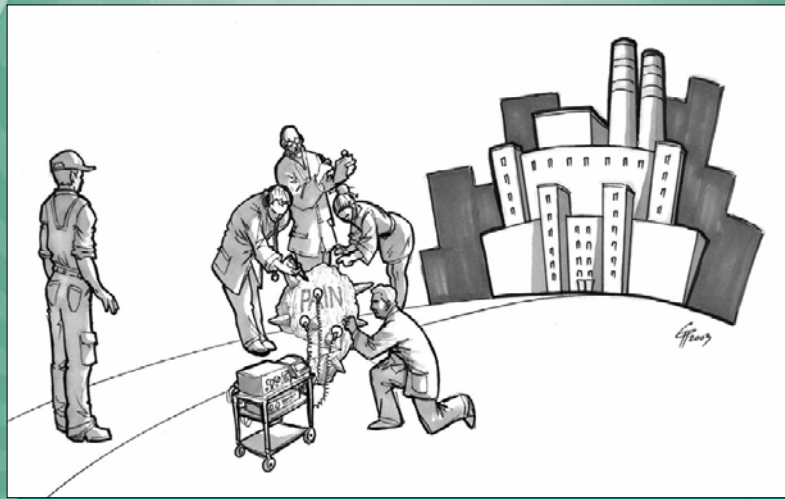


Research suggests that pain explains only 10% of the variance in Pain-related disability

Minimal Impact of Research on Practice

Still, we continue to spend over 80% of our health care resources on the treatment or management of pain symptoms. In other words, the recent research showing that factors other than pain contribute to pain-related disability has not changed the way pain conditions are treated.

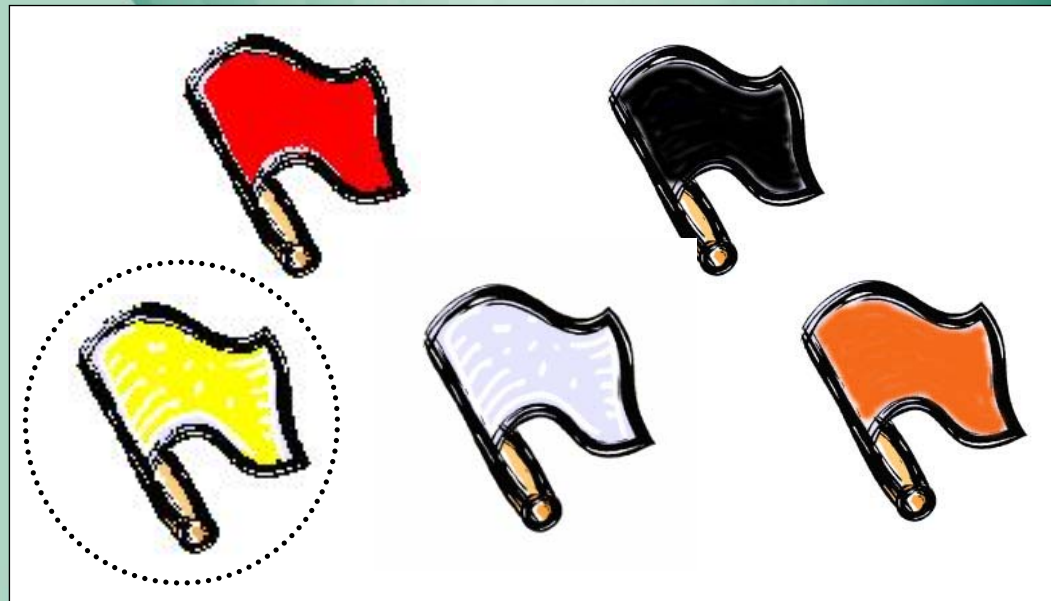
Minimal Impact of Research on Practice



A Look at Psychosocial Factors

Research over the past two decades has highlighted the important role of psychosocial factors in the development of chronic pain and disability. These are now referred to as yellow flags. Studies have revealed that certain psychosocial factors can place individuals at heightened risk for a trajectory of chronic pain and disability. The current challenge is to identify individuals at risk, and to intervene in order to prevent or reduce pain-related disability.

A Look at Psychosocial Factors



The PDP Program and PGAP as treatment resources for reducing pain-related disability

Two community-based programs have been developed by the University Centre for Research on Pain and Disability designed specifically to target psychosocial risk factors for chronic pain and disability.

Both the PDP Program and PGAP have similar objectives, namely to reduce psychosocial risk factors and promote re-integration into life role activities.

Objective

- **Interventions aimed at reducing 'modifiable' psychosocial risk factors for prolonged pain and disability.**

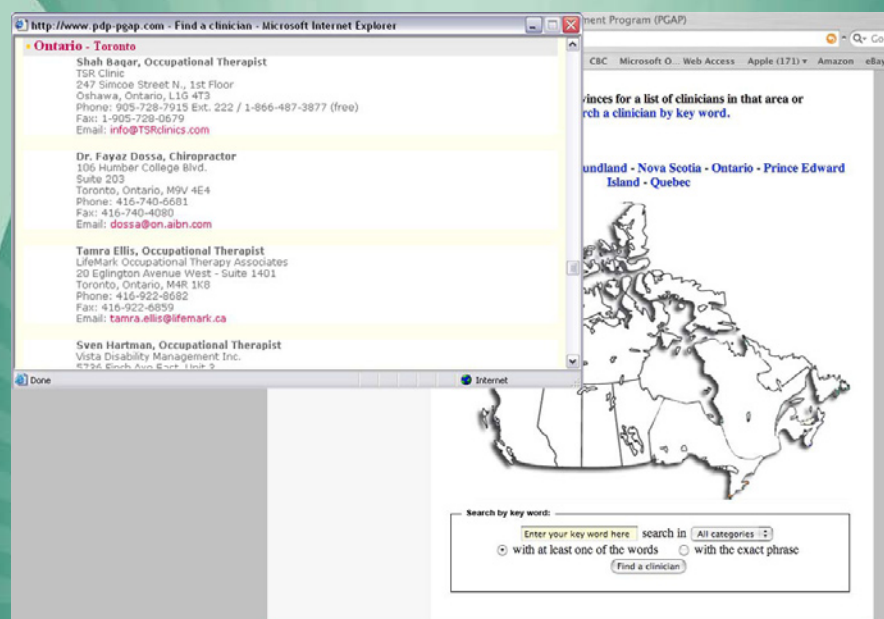


A Large Network of Trained Service Providers

Approximately 1000 rehabilitation professionals in Canada and the United States have been trained to deliver PGAP and the PDP Program. The network of rehabilitation professionals trained to deliver the PDP Program and PGAP continues to grow in number and geographical distribution. Individuals suffering from pain-related disability can thus be treated in a location within or near their community of residence, thereby reducing the inconvenience and time delay associated with accessing services in specialized treatment centres. The website for the University Centre for Research on Pain and Disability provides a directory of all professionals working in the private sector currently available to deliver the PDP Program and PGAP. Contact information in the directory of providers permits the referral source to communicate directly with the treating professional.

A Network of Trained Service Providers

www.pdp-pgap.com



Who can provide PGAP?

PGAP was designed to be delivered by front-line rehabilitation professionals such as physical therapists, occupational therapists, occupational health nurses, kinesiologists, rehabilitation counsellors and chiropractors.

PGAP Providers

- **Physiotherapists**
- **Occupational Therapists**
- **Occupational Health Nurses**
- **Kinesiologists**
- **Rehabilitation Counsellors**
- **Chiropractors**



Who can provide the PDP Program?

The PDP Program was designed to be delivered by psychologists, psychiatrists or physicians.

PDP Providers

- **Psychologists**
- **Psychiatrists**
- **Physicians**

Training PGAP and PDP Providers

All professionals who appear in the directory of providers have completed a two-day skills training workshop addressing methods of identifying individuals at risk for chronic pain and disability, and intervention techniques for reducing psychosocial risk factors for chronic pain and disability.

In addition to completing the training workshop, all professionals on the directory of providers must also belong to an organization responsible for regulating practice in their discipline.

Training: PGAP and PDP

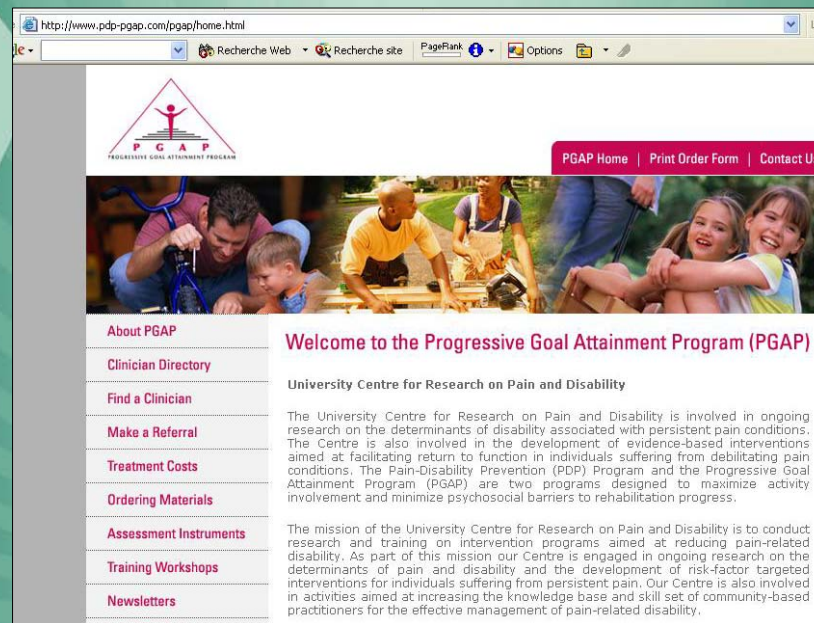
- Two-day skills training workshop
- Education
- Motivational enhancement
- Activity structure
- Life role re-integration
- Risk factor assessment
- Risk factor intervention



How are PGAP and the PDP Program different from existing approaches to the management of chronic pain and disability?

First, PGAP and the PDP Program are not pain management programs, they are disability prevention and disability reduction programs.

How our Programs Differ



Reducing Psychosocial Barriers to Rehabilitation Progress

The PDP Program and PGAP are the first disability prevention programs specifically designed to target psychosocial risk factors for pain and disability. Psychosocial factors were chosen as targets of the intervention on the basis of emerging research supporting their relevance to return-to-work outcomes, and their amenability to change through intervention.

Primary Goals of PDP and PGAP

1. Reduce Psychosocial Risk Factors
2. Promote Re-integration in Life Role Activities
3. Facilitate Return to Work



Modifiable Psychosocial Risk Factors

In the development of PGAP and the PDP Program, our focus was on intervention strategies targeting modifiable psychosocial risk factors. The modifiable psychosocial risk factors targeted by PGAP include catastrophic thinking, fear of movement/re-injury associated with pain, and perceived disability. In the PDP Program, depressive symptoms are also targeted.

Traditional rehabilitation approaches have not considered the role of psychosocial risk factors in screening or treatment delivery. As such, individuals with psychosocial risk profiles have not received treatment that addresses psychosocial barriers to recovery and rehabilitation. Consequently, many individuals have unnecessarily followed a trajectory of chronic pain and disability.

Risk Factors Targeted by the PDP Program and PGAP

- **Catastrophizing**
- **Fear of movement/re-injury**
- **Perceived disability**
- **(Depression; PDP only)**



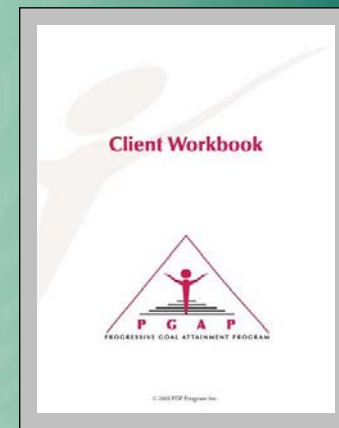
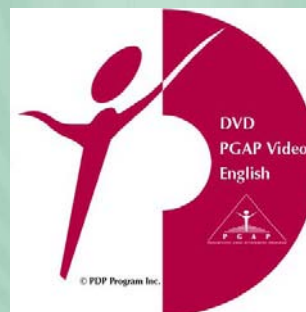
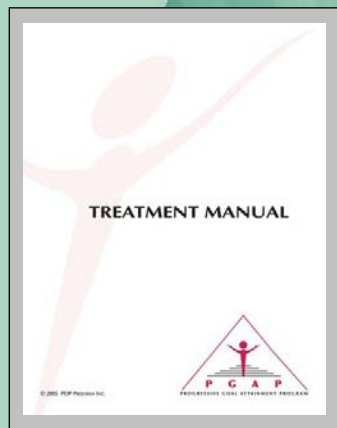
Standardized Intervention Programs

PGAP and the PDP Program are also the first standardized programs that have been designed to identify individuals at risk for chronic pain and disability, and incorporate techniques targeting the psychosocial risk factors that have been shown to contribute to prolonged pain and disability.

PGAP

A standardized intervention

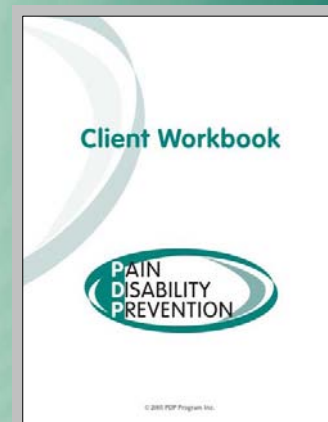
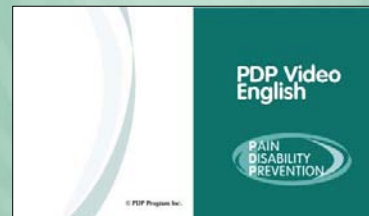
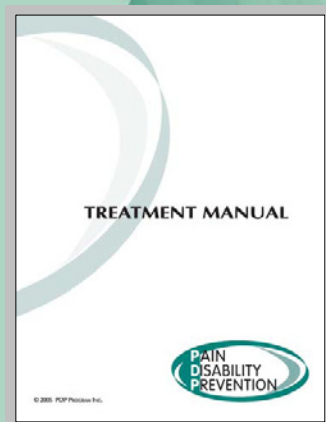
Intervention Tools



PDP Program

A standardized intervention

Intervention Tools

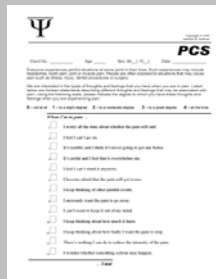
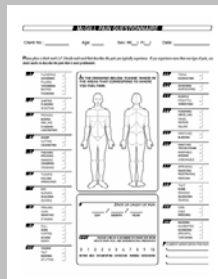


Screening for Psychosocial Risk Factors

The PGAP and PDP Program clinicians have been trained in screening methods to identify individuals at risk for chronic pain and disability.

In other words, not everyone is considered a suitable candidate for one of these programs. Only individuals who show a psychosocial risk profile targeted by the programs are considered suitable candidates.

PGAP and PDP Program* Standardized assessment



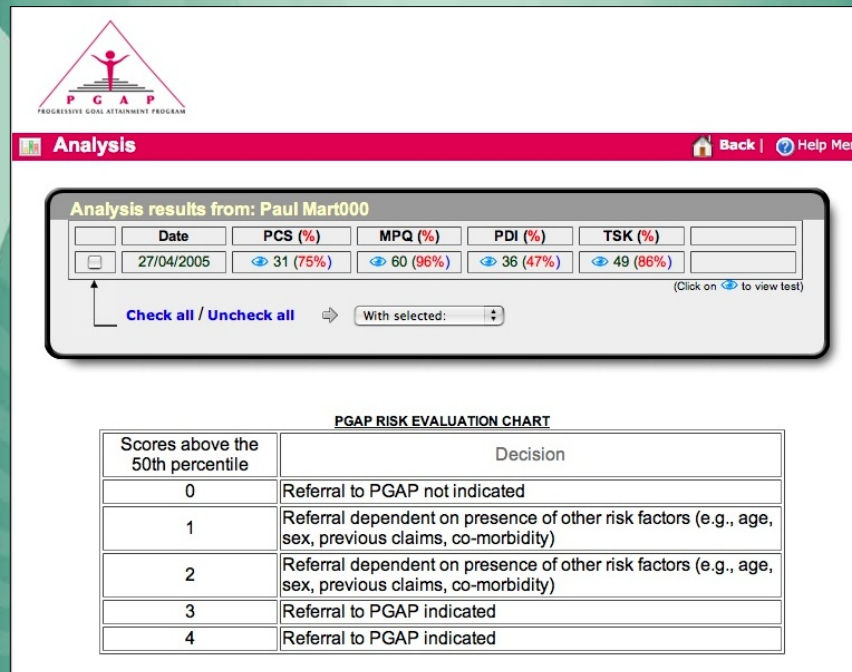
•Also administered with the PDP Program:
The Beck Depression Inventory II (BDI-II)



Computer-Based Assessments

Software has also been developed to facilitate the task of assessing psychosocial risk profiles. Clinicians can use the PDP-PGAP software to score, analyse assessment results. Using the PDP-PGAP software, test results can be electronically forwarded to the referral source.

Computer-Based Assessments



The screenshot displays the PDP-PGAP software interface. At the top, there is a logo for the Progressive Goal Attainment Program (PGAP) and a navigation bar with 'Analysis', 'Back', and 'Help Menu' options. The main content area shows 'Analysis results from: Paul Mart000'. Below this, there is a table with columns for Date, PCS (%), MPQ (%), PDI (%), and TSK (%). The data row shows a date of 27/04/2005 and scores of 31 (75%), 60 (96%), 36 (47%), and 49 (86%) respectively. There are checkboxes for each score and a 'Check all / Uncheck all' button. A 'With selected:' dropdown menu is also present. Below the table, there is a 'PGAP RISK EVALUATION CHART' table.

Date	PCS (%)	MPQ (%)	PDI (%)	TSK (%)
27/04/2005	31 (75%)	60 (96%)	36 (47%)	49 (86%)

Check all / Uncheck all With selected: (Click on [icon] to view test)

Scores above the 50th percentile	Decision
0	Referral to PGAP not indicated
1	Referral dependent on presence of other risk factors (e.g., age, sex, previous claims, co-morbidity)
2	Referral dependent on presence of other risk factors (e.g., age, sex, previous claims, co-morbidity)
3	Referral to PGAP indicated
4	Referral to PGAP indicated

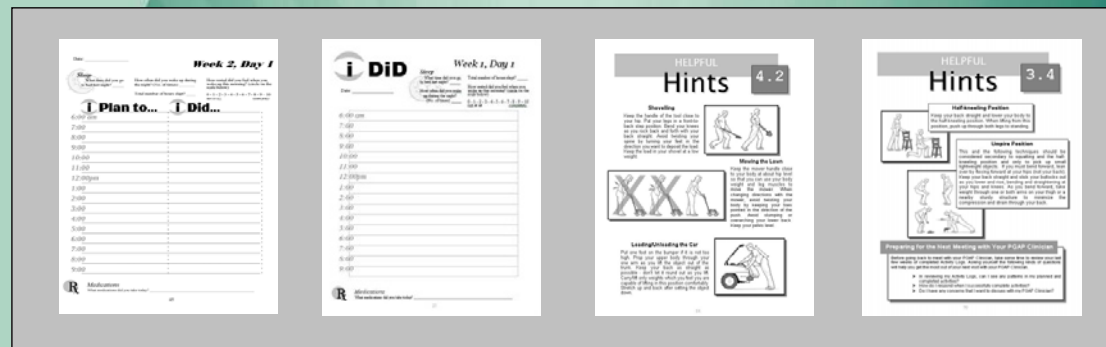
Materials Used in Treatment

During their meetings with clients, clinicians will make use of video material to provide education, reassurance and promote expectancies for positive outcomes. The clinician will use activity structuring techniques and graded activity involvement to promote resumption of key life role activities. Specific intervention modules are implemented to tailor the program to the client's psychosocial risk profile.

Each client receives a copy of the Client Workbook. The Client Workbook serves as the platform for the implementation of many of the intervention components of the program and also serves to maximize fidelity to treatment protocol.

The Client Workbook

Client Workbook is the platform of the Program and key to ensuring fidelity to protocol



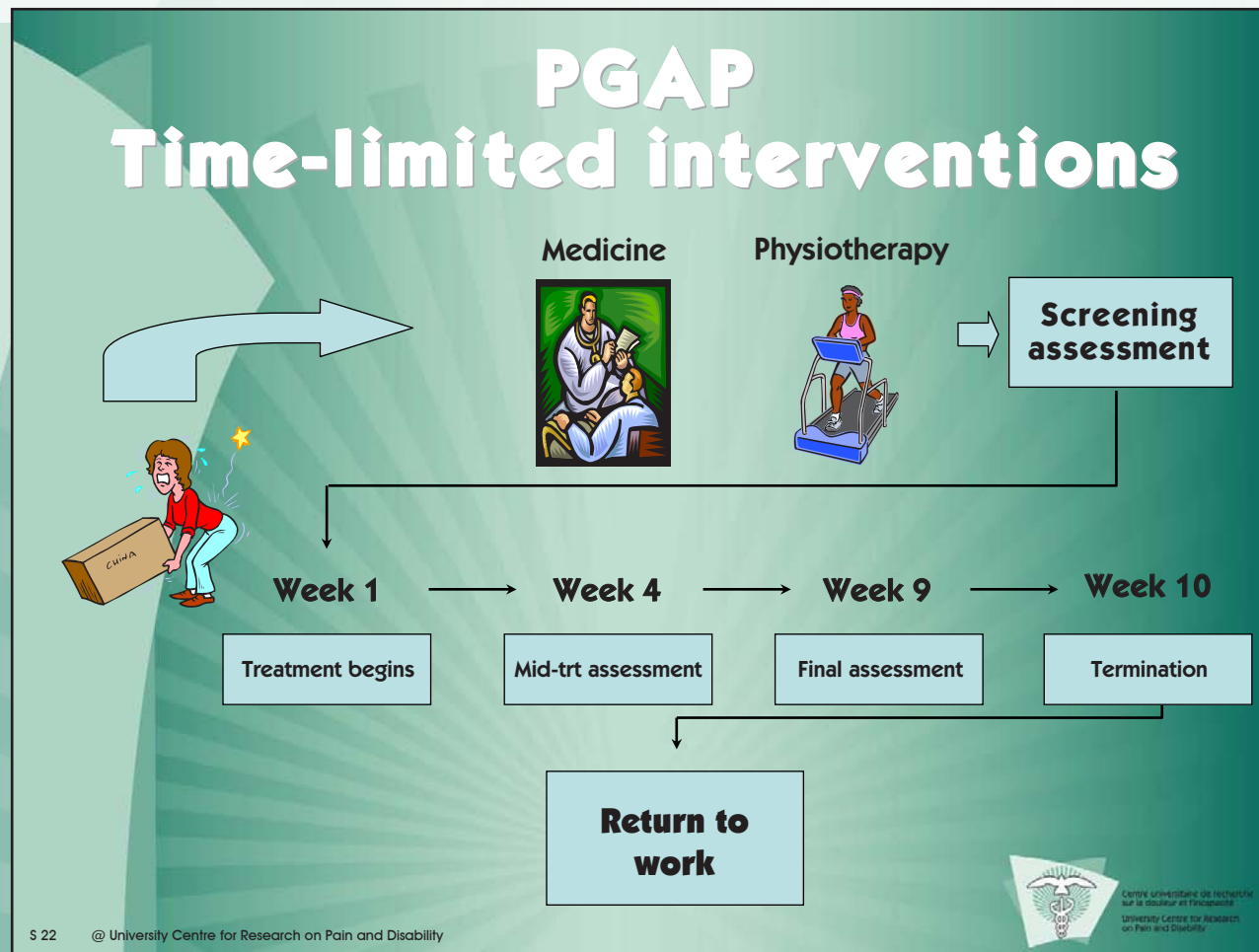
Client is provided with a copy of the Client Workbook in the first week of the Program



A Time-Limited Intervention

Evaluations of psychosocial risk profiles are conducted prior to the intervention in order to determine whether the client is a suitable candidate for the program. Psychosocial risk profiles are also assessed mid-treatment and at treatment termination in order to assess the degree of improvement.

In PGAP and the PDP Program, clients will meet with their clinician once per week for a maximum of 10 weeks. The program is typically terminated as soon as the client returns to work. For individuals who have recently been injured, the program is often less than 10 weeks duration. The programs never exceed 10 weeks in duration. Program sessions are intended to last approximately one hour.



Program Effectiveness

A recent study showed that the addition of PGAP to a functional restoration physical therapy program increased return to work rates by more than 50%. In a sample of 70 individuals with chronic disability due to a cervical sprain injury, 75% of clients returned to work following completion of PGAP.

PGAP Outcome Evaluation

Return to Work Rates

N = 70

6.1 months post-injury

**Soft tissue injuries
(neck, back)**

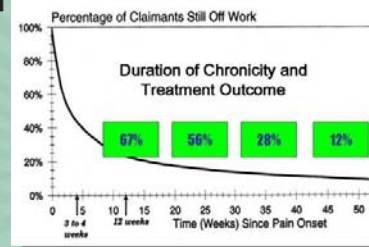
**At least one psychosocial
risk factor**

**Returned to
Work**

Off Work

75%

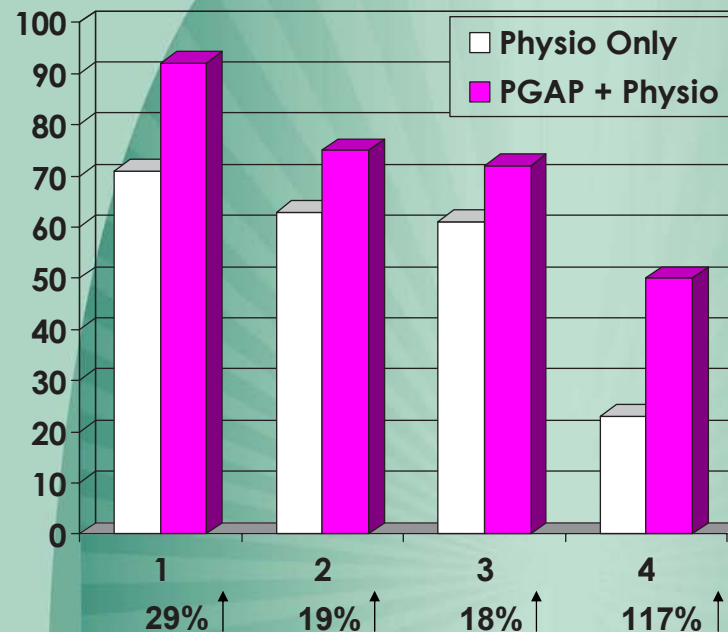
25%



Added Value of PGAP

The added value of PGAP was most apparent for the subgroup of individuals who showed the most severe psychosocial risk profile. These outcomes are similar, if not better, than outcomes typically obtained following treatment in multidisciplinary treatment centre at a fraction of the cost (Sullivan et al. 2006).

PGAP and Return to Work



Catastrophizing
Fear of Pain
Perceived Disability
Pain Severity

N = 70 PGAP + Physio
N = 60 Physio Only
M = 6 months post-injury

Added Value of PDP

A recent study showed that when the PDP Program was implemented in a particular region, return to work rates increased significantly. The values below compare the return to work rates of a sample of injured workers who were referred to the PDP Program and a matched sample of injured workers who received usual treatment. Referral to the PDP Program yielded three to four fold increases in the probability of return to work (Sullivan and Stanish, 2003; Sullivan et al. 2005).

Return to Work - PDP

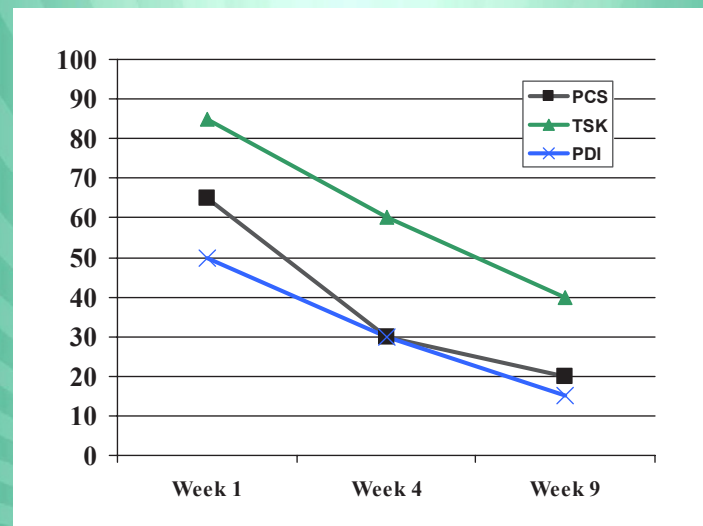
	Duration of work absence		
	4 - 12 weeks	12 - 36 weeks	+ 32 weeks
PDP	78%	50%	10%
Pre-PDP	26%	18%	2%



The Key to Rehabilitation Success: Reduction in Psychosocial Risk Factors

Four clinical studies to date have shown that reductions in psychosocial risk factors subsequent to participation in PGAP or the PDP Program are associated with improved return to work outcomes (Sullivan and Stanish, 2003, Sullivan et al 2004, 2005, 2006).

Measuring Improvement



Cost-Effectiveness

Emerging research indicates that the PGAP and PDP Program are two of the most cost effective interventions for the prevention or reduction of disability associated with pain.

Economic Evaluation

- PDP and PGAP yield outcomes similar to those obtained in multidisciplinary treatment programs.
- PDP and PGAP cost 80% less than multidisciplinary programs.

Thank you for taking time to view this presentation.

If you would like additional information about our Programs and research, please e-mail:
info@pdp-pgap.com



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