

# Health Literacy and Chronic Disease Management

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Laura Mackey  
BSc Physiotherapy  
PhD



**The Meath Foundation**  
Healthcare, Research and Education at the Hospital in Tallaght

# Overview

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- Overview of health literacy.
- Impact of health literacy and self-management.
- Health literacy outcomes in the context of chronic pain.
- Health literacy awareness in health settings.
- Experiences implementing health literacy-sensitive interventions in existing services.



# Overview of Health Literacy

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*'The degree to which individuals have the capacity to obtain, process, and understand basic information and services needed to make appropriate decisions regarding their health' <sup>1</sup>.*

- Associated with poorer health outcomes in chronic diseases – e.g. symptom severity, medication adherence, increased hospitalisations, and higher mortality<sup>2</sup>.
- Low health literacy more common in older people, lower educational attainment, lower SES, and ethnic minorities.
- Increasingly considered and important health determinant<sup>3</sup>.

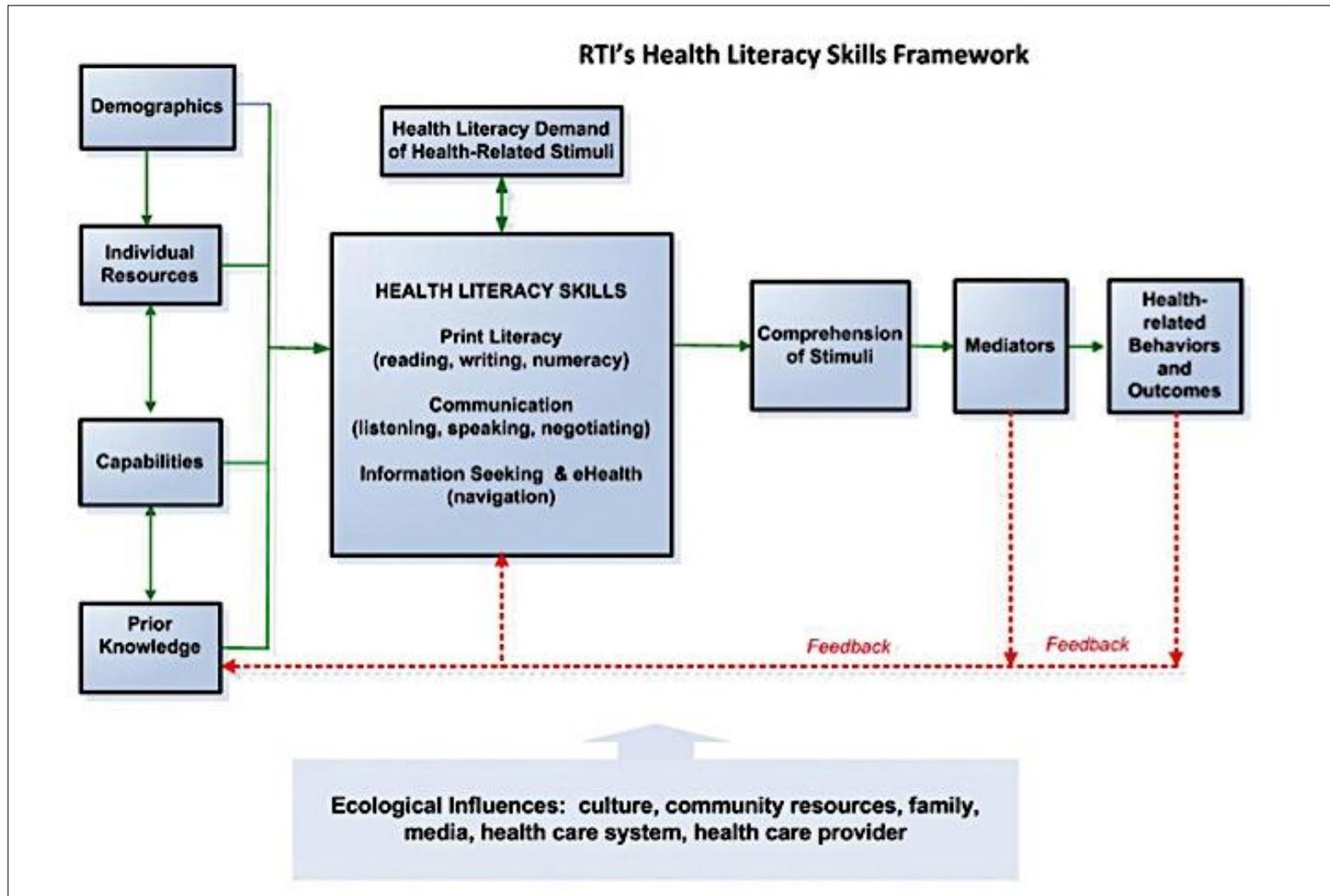
# Overview of Health Literacy

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- Relatively new and evolving concept.
- Assessment: Print literacy, oral literacy, numeracy, and multidimensional measurements.
- Consider the patient – ‘personal asset’, and the health environment – ‘risk factor’<sup>4</sup>.
- Development of frameworks to describe development of health literacy – e.g. RTI Health Literacy Skills Framework<sup>5</sup>.



# RTI Health Literacy Skills Framework<sup>5</sup>



## Health Literacy Advisory Panel

- Organisations working in healthcare interested in advancing actions & strategies to improve health literacy in their own organisation & influencing a national health literacy policy.
- The HSE Health Promotion & Improvement and Social Inclusion Units, Irish Cancer Society, Irish Hospice Foundation Temple Street Children's University Hospital, University College Cork, University College Dublin, & Merck Sharpe and Dohme (MSD)

## Government Commitment

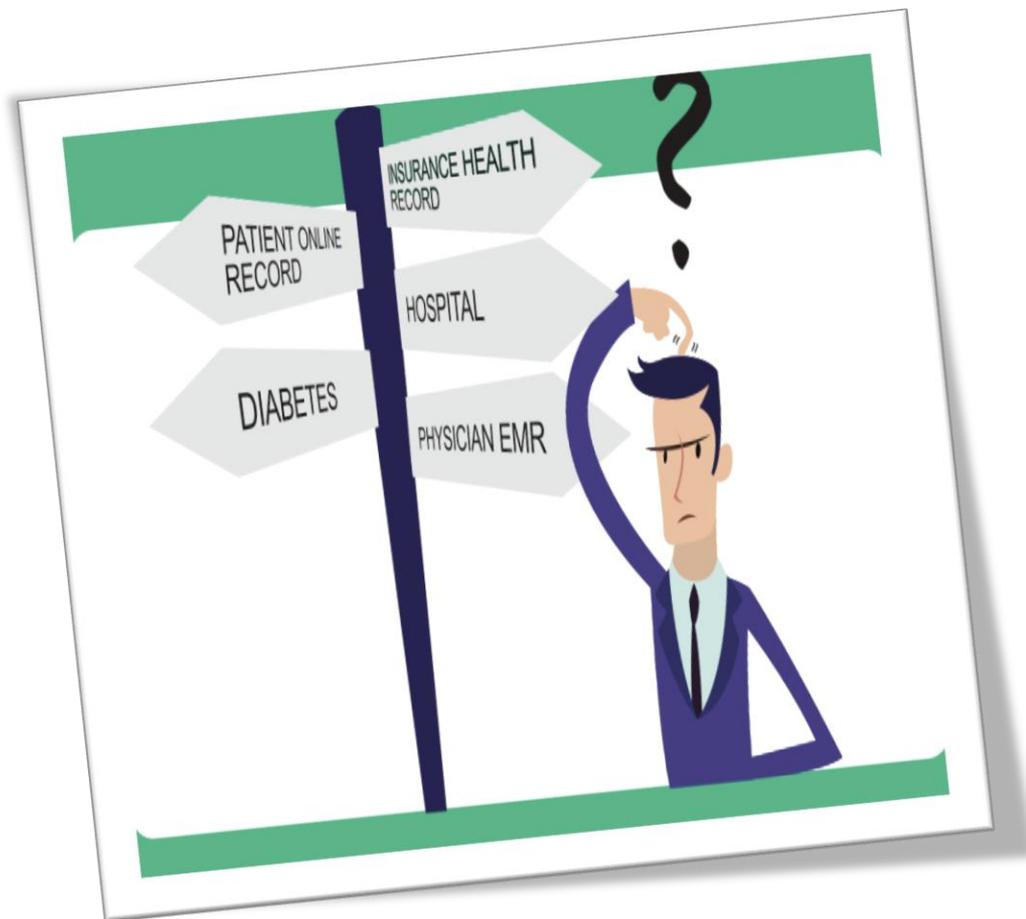
- Healthy Ireland is a new national framework for action to improve the health and wellbeing of our country over the coming generation (2013 – 2025). Supported by HL Council.
- It contains the first ever Government commitment to health literacy:
  - **“Address and prioritise health literacy in developing future policy, educational and information interventions”**

## HSE Healthy Ireland Implementation Plan 2015-17

- **HSE Healthy Ireland Implementation Plan 2015-17**
- **Action 45** – Promote and provide national tools for training, resource development, and health literacy audits in services to raise standards of health literacy among patients, service users, and carers.

# Why Health Literacy?

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Global Initiative for Chronic  
Obstructive  
Lung  
Disease



GLOBAL STRATEGY FOR THE DIAGNOSIS,  
MANAGEMENT, AND PREVENTION OF  
CHRONIC OBSTRUCTIVE PULMONARY DISEASES  
UPDATED 2014

O. Airaksinen  
J. I. Brox  
C. Cedraschi  
J. Hildebrandt  
J. Klaber-Moffett  
F. Kovacs  
A. F. Mannion  
S. Reis  
J. B. Staal  
H. Ursin  
G. Zanoli

On behalf of the  
Working Group on  
Chronic Obstructive Pulmonary Disease

## Chapter 4 European guidelines for the management of chronic nonspecific low back pain

# Self- Management

American  
Podiatry  
Association  
life is w

Prevention and management  
of foot problems\*

\* Update of the guideline entitled *Clinical Guidelines and Evidence Review for Type 2 Diabetes: Prevention and Management of Foot Problems* published by the Royal College of General Practitioners in 2000

Clinical Guideline 10

January 2004

Developed by the National Collaborating  
Centre for Primary Care



# Self-Management Skills in Chronic Disease Management: What Role Does Health Literacy Have?

*Laura M. Mackey, BSc (Hons), Catherine Doody, PhD, MSc,  
Erik L. Werner, MD, PhD, Brona Fullen, PhD, MSc*

Med Decis Making. 2016 Aug;36(6):741-59. doi: 10.1177/0272989X16638330. Epub 2016 Apr 6.

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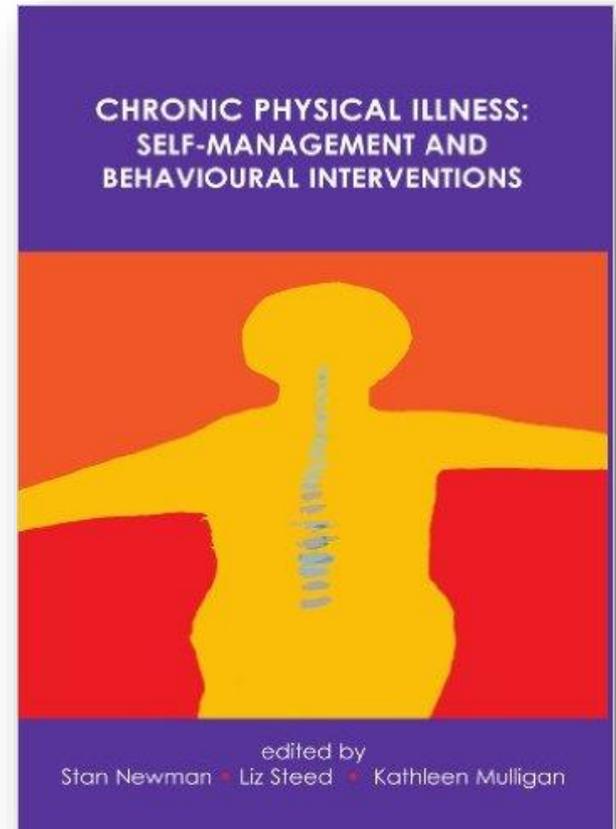
- Investigated the association between health literacy and characteristics associated with the development of self-management skills.
- Included chronic diseases of greatest mortality risk where self-management is core to effective outcomes.



# Self-management Characteristics

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- Newman et al<sup>6</sup> proposed three behavioural models associated with the development of self-management skills.
- Three characteristics:
  - **Knowledge** – Common Sense Model
  - **Self-efficacy** – Social Cognitive Theory
  - **Beliefs** – Theory of Planned Behaviour
- How does health literacy impact on these characteristics?



# Systematic Review Findings

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- 31 studies included, 7 disease categories.
- Low health literacy negatively impacted on patient characteristics:
  - **Disease-related knowledge** (n=22/25) respiratory diseases, diabetes multiple disease categories.
  - **Self-efficacy** (n=4/8) cardiovascular diseases, diabetes, HIV, multiple diseases.
  - **Beliefs** (n=3/4) respiratory diseases, musculoskeletal diseases, multiple diseases.



# Conclusions & Recommendations

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- Best Practice Guidelines?
- Deconstructing self-management may provide opportunity to develop new interventions.
- Health literacy should be considered in the development of such interventions.
- Focus on knowledge, self-efficacy, and beliefs.
- Long term outcomes and economic benefits?



# The Impact of health literacy on health outcomes in individuals with chronic pain.

Mackey LM, Blake C, Casey MB, Power CK, Victory R, Hearty C, Fullen BM.  
Under Review in Physiotherapy

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- Establish levels of health literacy in a chronic pain population.
- Investigate associations between health literacy and health outcomes in individuals with chronic pain.
- Examine the role of health literacy and self-management.
- Compare levels of health literacy and outcomes between a chronic pain and control group (i.e. no history of chronic pain).



# Methods - Overview

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- Cross-sectional study undertaken in three university hospitals – SVUH, MMUH, AMNCH.
- Participants recruited:
  - Chronic pain group – new patients attending their first appointment in an outpatient pain management clinic.
  - Control group – individuals with no history of chronic pain also invited to participate.
- Survey Comprised:

Demographics	Pain Specific Outcomes
Health Literacy (NVS) <sup>7</sup>	Beliefs (BPCQ) <sup>9</sup>
Behaviours (SNAPW) <sup>8</sup>	Pain Knowledge
Health Service Usage	Quality of Life (SF-36) <sup>10</sup>



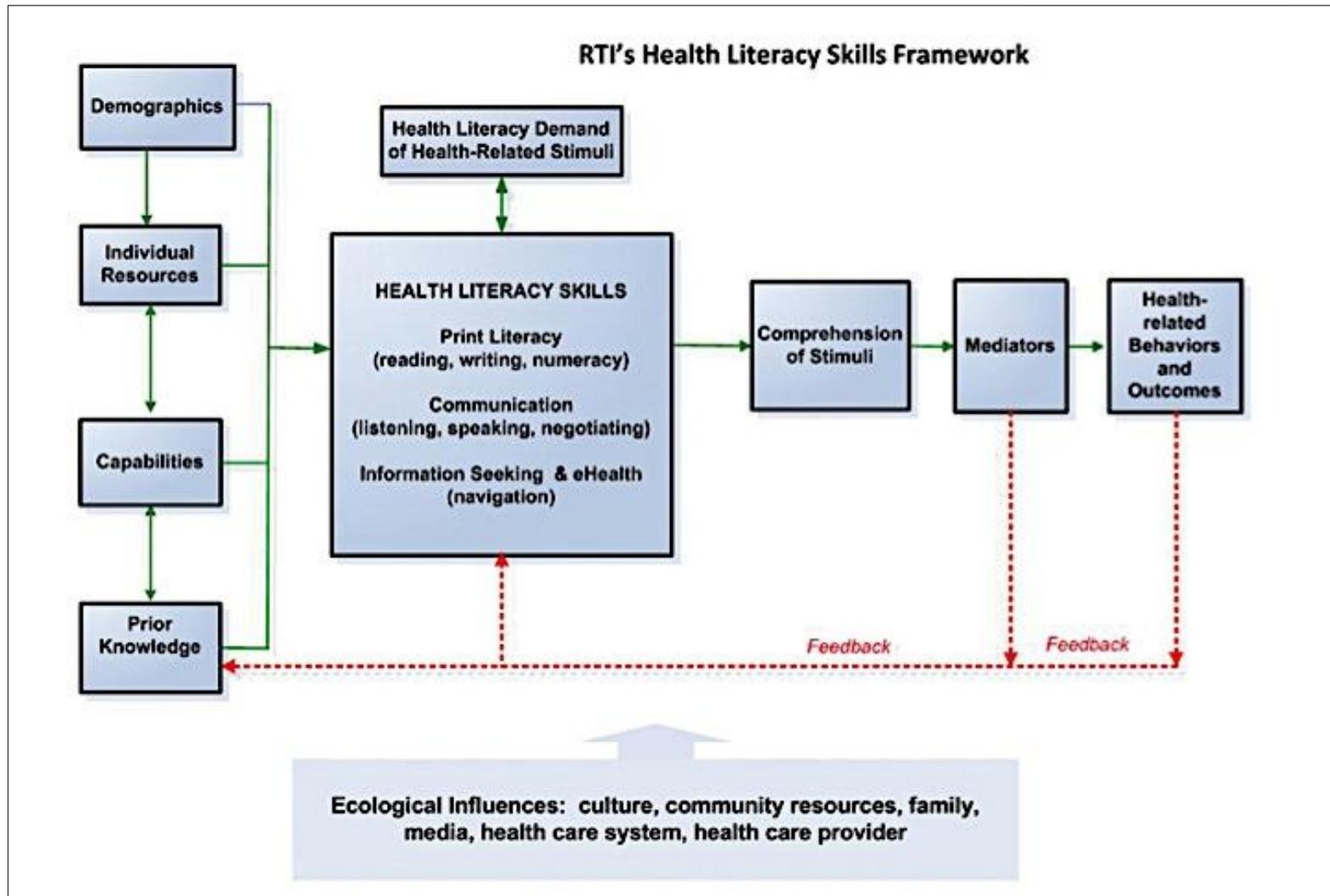
# Findings

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- Low health literacy established at 54% in chronic pain group, and 49% in control group.
- Low health literacy associated with being older, lower educational attainment, lower income and more comorbidities.
- Low health literacy associated with poorer disease-related knowledge and beliefs.
- No differences observed between chronic pain and control group, despite being significantly higher users of health services.



# RTI Health Literacy Skills Framework<sup>5</sup>



# Conclusions

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- Best practice and Pain Management Programmes.
  - Gold standard for chronic pain.
  - Self-management core component.
  - Cochrane review reported modest outcomes<sup>11</sup>.
  - Health literacy?
- Chronic pain patients significantly higher users of healthcare.
  - No differences in health literacy levels between groups.
  - Are our health services addressing health literacy?
  - RTI Health Literacy Skills Framework<sup>5</sup>.



# Health Literacy and Health Settings

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- Evolving concept of Health Literacy.
  - ‘Personal Asset’, for patient.
  - ‘Risk factor’, health service context.
  - Studies identified poor health literacy awareness amongst healthcare professionals<sup>12</sup>.
- Survey conducted in multidisciplinary team in pain clinics demonstrated lower awareness of health literacy, specifically:
  - Prevalence (i.e. estimated approx 10-20%).
  - Less aware of methods to address low health literacy.
  - Misinterpret what health literacy is.
  - Lack of time or resources to address.



# Implementing Health Literacy

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- Pilot study in chronic pain patients (n=28).
- Demonstrate implement a health literacy-sensitive intervention into existing service.
- A cognitive-behavioural pain management programme (CBT-PMP) with multidisciplinary team.
- Pre and post outcomes in patients observed in patients attending usual CBT-PMP and health literacy-sensitive CBT-PMP.



# Health Literacy-Sensitive Intervention

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- National Adult Literacy Agency (NALA) collaboration.
- Plain English services applied to all documentation that patients receive.
- 2 hour workshop regarding health literacy assessment and management provided to multidisciplinary team.
- Follow up with NALA possible when deploying new documentation.
- Intervention implemented half way through study.



# Findings

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- Qualitative and quantitative methodologies utilised.
- Improved health outcomes observed in the health literacy-sensitive group, specifically:
  - Quality of life.
  - Pain severity.
  - Beliefs about pain.
  - Self-efficacy.
  - Disease-related knowledge.
- Participants with both low and adequate health literacy showed improved health outcomes in comparison to usual care.



# Conclusions & Recommendations

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- Implementing a health literacy-sensitive intervention into an existing service is achievable, and well-received.
- Training in one service may have wider impact.
- Short term positive impact observed in patients with chronic pain.
- Long term follow up with patients is required.
- Attitudes of healthcare professionals who engage in training around health literacy required.



# Future Directions

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- Health literacy an important health determinant in chronic diseases.
- Self-management interventions should have greater health literacy awareness.
- Health literacy sensitive interventions has a greater impact for patients with chronic pain, regardless of prior health literacy levels.
- Policy not matching with realities of healthcare settings – needs to be addressed.
- Toolkits and support available for healthcare professionals.



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