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The psychology of pain and pain relief

Pharmacist Sinéad Ryan explains the significant role that psychology (perception) plays in the experience and management of pain, the factors influencing these perceptions and the questions to ask in order to deliver the best advice to your customers.

Have you ever experienced intense pain? Vice-like, knife-twisting, grinding, stabbing, and shooting are just some words used to describe pain. How many of the people in your pharmacy have used these expressions and can claim they have experienced the 'real thing'? Pain is personal. It is our experiences, perceptions and beliefs that can affect how we feel pain and influence the level of pain relief we can achieve.

The more that pharmacists and the pharmacy team can understand people's perceptions (or psychology) of

pain and their expectations from pain relief, the more we can make a difference to their health.

Pharmacists can play a vital role in helping customers address their pain, as pain is the most common reason given for self-medication[1]. The development of an understanding of customers' perceptions of pain presents an opportunity for the pharmacist to increase customer satisfaction, inspire repeat visits, build customer loyalty and add value to the pharmacy.

Pain is a personal experience

Most people have experienced a degree of pain at some time. Whether the pain is acute, recurring or chronic, it is a personal and complex experience[2].

A function of pain is to **demand attention** and act as a **warning signal**. It is therefore difficult to simply ignore pain, particularly if it has alarming characteristics such as being very intense, sharp, or has a sudden unexplained onset[2]. The perception of pain involves far more than the mere sensation of discomfort[3] and is highly dependent on the context in which it occurs. A person's expectation of how much pain should be felt in a specific situation influences how much pain the person feels and their response to treatment.

Making sense of pain

Pain can have a negative effect on emotions (mood, beliefs, attitudes, expectations) and on cognitive function (awareness, attention, memory, interpretation). Conversely, a negative emotional state can lead to increased pain, whereas a positive state can reduce pain. Similarly, cognitive states, such as attention and memory, can either increase or decrease pain.

Factors influencing our perception of pain

ATTENTION – Pain demands our attention. Attention to pain (**vigilance**) can increase the intensity of pain[2], whereas **distraction** can have a powerful effect on our perception of pain[4].

EMOTIONS – Pain often generates negative feelings such as fear, anxiety, worry, frustration etc. These negative feelings can increase the perception of pain whereas positive emotions might decrease pain[2], e.g. making a child laugh when he/she has hurt him/herself can distract them from their pain.

COGNITION – Cognition is how one thinks about or interprets pain. Negative thoughts can lead to pain catastrophising, where a person believes his/her pain will never stop or only get worse. This can hinder recovery and increases the risk of persistent pain.

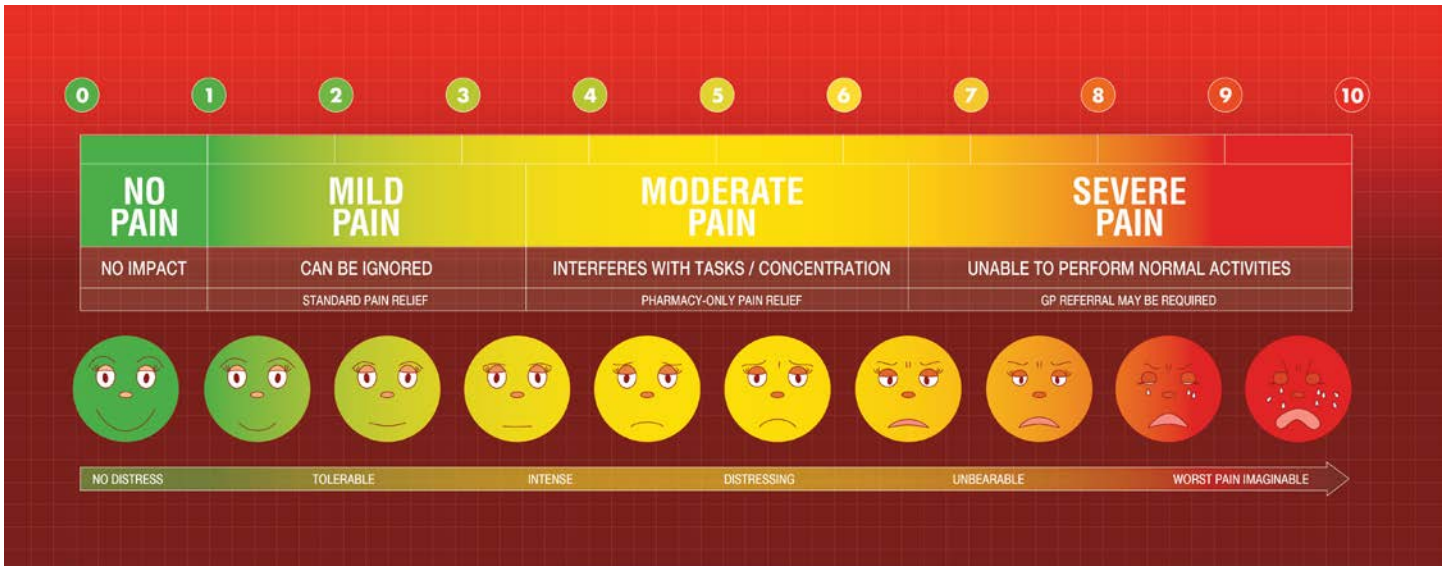
EXPECTATIONS – One's encounter with a specific source of discomfort can affect the reaction to the same exposure in the future. An inflated expectation can override feedback from pain receptors, turning what should be a mild pain into a severe one.

CONTEXT – Where and when we experience pain (situation/event) can affect one's perception of pain, e.g. a rugby player who is caught up in the excitement of a game may barely notice the pain of getting tackled on the playing field. A person getting thrown to the floor in his/her living room is bound to have a different sensation.

GENDER – Women are reported to have a greater sensitivity to pain than men. A woman's response to pain varies across the menstrual cycle, during and after pregnancy and with the intake of hormone replacement therapy or the contraceptive pill[5].

CULTURE – A person's beliefs and cultural upbringing can change the way the body and brain respond to pain. For example, a person growing up in a culture that believes pain is noble would have different beliefs about pain[5].

PERSONALITY – People who score higher on neuroticism factors (anxiety, fear, moodiness, worry, envy, frustration, etc.) tend to show greater sensitivity to pain and reduced tolerance[5].



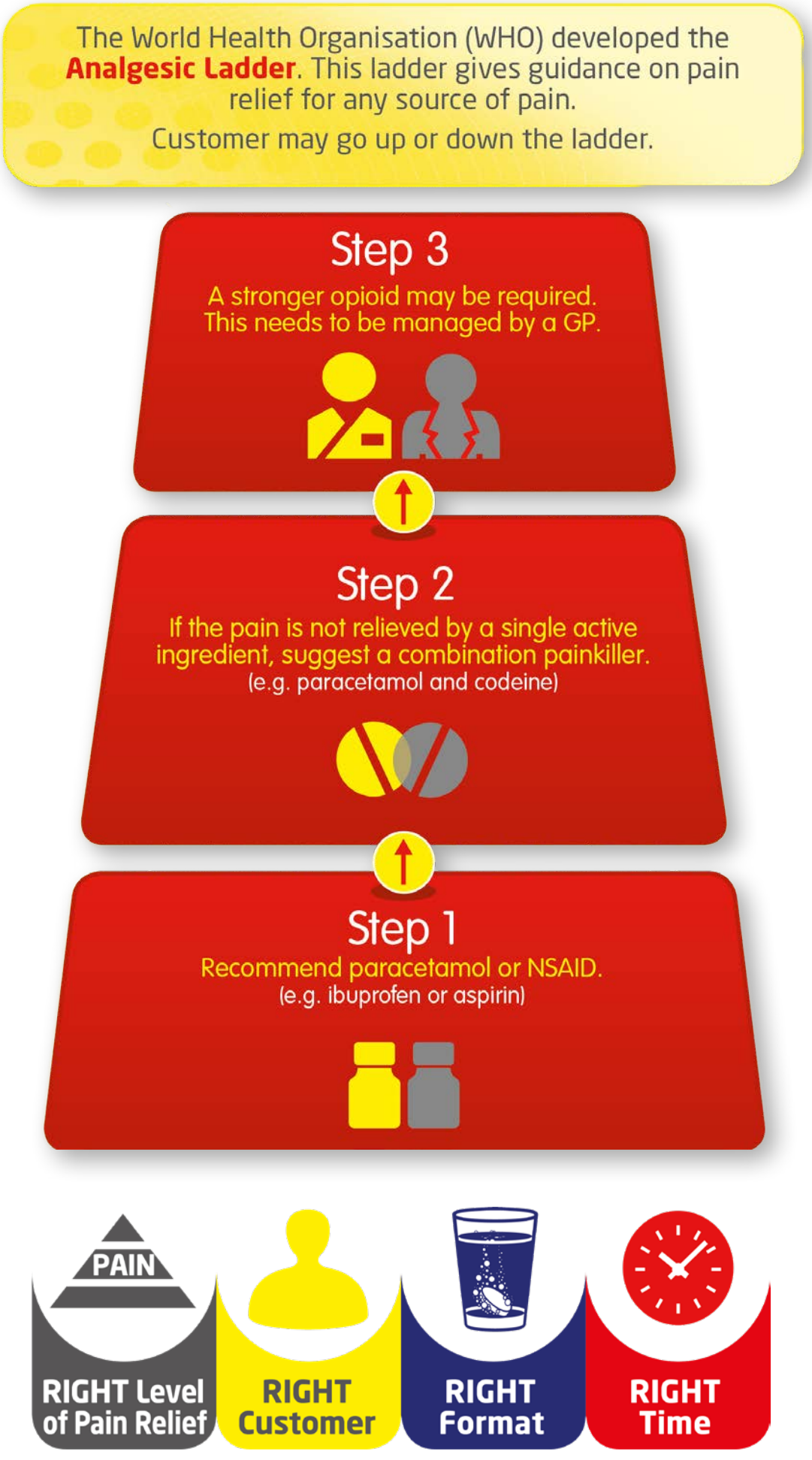
The power of psychology in pain relief

The effectiveness of painkillers is more than the active ingredient. A large part of the power of analgesia is in the 'belief' or expectations of the effectiveness. The power of cognitive perception in pain management can be demonstrated by the placebo effect.

Placebo effects in analgesia cannot be underestimated and the administration of placebo leads to a positive response in around 35% of people with pain[6]. Research has shown that a branded medicine can be more likely to confer effective pain relief than a generic version, with the researchers concluding: "Branding medication with a known pharmaceutical company name or product name bestows on the drug an added assurance of authenticity and effectiveness compared to a non-branded preparation."[7] Besides being perceived as more effective, the branded analgesic was also perceived to have fewer side-effects than the non-branded version[7]. Again, this demonstrates the considerable power of psychology in pain relief.

The actual presentation of the medication may also play a role in increasing perceived pain relief. The colour, shape, taste and format can improve outcomes. Researchers have found that "patients undergo a sensory experience every time they self-administer a drug, whether it's swallowing a tablet or capsule, chewing a tablet or swallowing a liquid. The ritual involving perceptions can powerfully affect a patient's view of treatment effectiveness"[8]. This in turn is likely to influence the outcome of taking the medicine.

Recommending the most appropriate pain relief medication based on factors beyond chemical efficacy, like cognitive perception, will lead to the best outcomes.



Making a difference to people with pain

Customers are generally comfortable discussing their pain in a pharmacy and feel better able to cope after a pharmacy consultation[9]. It is important to ask the customer questions to ensure you make the right recommendation, bearing in mind the numerous psychological factors, which may influence their pain perceptions.

LESS PAIN – An effective tool for understanding the psychology of pain in pharmacy
It is important to listen to customers when discussing pain and ask careful questions. If a customer says that they are "in pain all the time", that might not be what they mean. Careful and probing questions need to be asked, which include how their pain affects them, their lifestyle and their mood. The **University College London** School of Pharmacy, has devised an effective questioning tool – 'LESS PAIN' – to enable effective conversations by asking key questions so we can make a difference to those in pain.

Length – *How long has the pain been troubling you?*
Event – *Is the pain linked to any particular event or illness?*
Severity – *How much pain are you in from a scale of 1 (no pain) to 10 (worst pain imaginable)?*
Sensation – *Can you describe how it feels and where it is?*

Prescription/OTC medicines – *What medicines have you tried to relieve your pain? Have you talked to your GP about your pain?*
Activity – *How is the pain affecting your normal activities, e.g. restrict movement, affect sleep etc.?*
Interventions – *Have you tried any non-pharmaceutical treatments to help relieve your pain, e.g. RICE (Rest, Ice, Compression, Elevation), physiotherapy etc.?*
Not mentioned issues – *Is there anything else concerning you about your pain? Anything you feel is important but may not be easy to talk about?*

By learning more about a person's reported pain and the context in which the pain occurs, management can be more effective.

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