



Global Pain Index

SUMMARY REPORT

A first-of-its-kind global study into attitudes towards body pain around the world



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Introduction

A whole new understanding of the world's relationship with body pain

As a practising pharmacist, helping people manage pain is both an important and very rewarding aspect of my role. In common with most community pharmacists, I see people every day who are seeking treatment for body pain; that is, pain in their muscles, tendons, ligaments or joints. This is why I welcome any research that provides us with a better understanding of and insight into this type of pain and those who suffer from it.

The GSK Global Pain Index is global study of 7,000 adults, across four continents and 14 countries. This is the first time a study like this has been carried out and it provides a unique and fascinating picture of the various ways in which different cultures, countries and social groups experience body pain and, crucially, respond to it.

It reveals that at some point in their life, nearly everyone experiences body pain; and for many people, this experience is all too frequent. What's more, it can often have a significant impact on quality of life – from limiting our ability to move around freely to causing physiological distress and negative emotions. This study is an invaluable insight, not only for pharmacists like me, but also for doctors and nurses who need to understand the emotional issues related to pain as well as the physical impact it has.

The findings of the GSK Global Pain Index mirror what many of my patients speak to me about. They also reflect many of the questions I have answered during 30 plus years of giving advice on a health phone-in radio programmes in Australia. One of the most common questions I am asked is how to manage and treat pain in the best possible way. It's clear therefore that while people are suffering from body pain and know that they need treatment, they don't necessarily know the differences between the products available, both with and without prescription, as well as other ways to help manage their pain through movement, diet and other lifestyle factors.

I'm sure that with knowledge from the GSK Global Pain Index, pharmacists and other healthcare professionals can better serve as ambassadors and educators around this new way of looking at body pain. Most importantly, I know that the findings will help to start further conversations, positively build relationships and inform treatment recommendations for the pain sufferers that I meet every day. I hope you find it as interesting and useful as I do.

John Bell, Pharmacist

1.0

WHAT IS THE GLOBAL PAIN INDEX?



1.

WHAT IS THE GLOBAL PAIN INDEX?

1.1

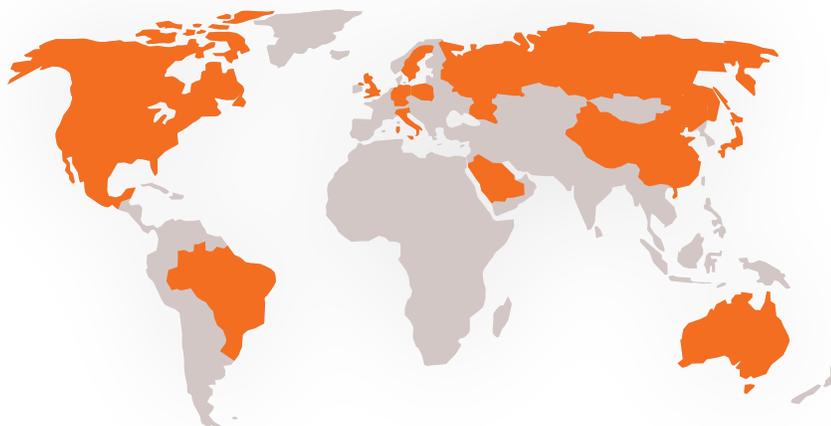
Overview of global study

The Global Pain Index (GPI) is an in-depth global study into attitudes towards body pain¹ around the world. The first-of-its-kind global study reveals that body pain – usually perceived to be trivial and given low priority – affects more than 88% of the global population and has a significant impact on the lives of many. While the prevalence of body pain is consistent across the globe, the GPI found that the way people respond varies dramatically depending on where they live.

The GPI was commissioned by GSK Consumer Healthcare, on behalf of body pain expert Voltaren® and conducted by global market research firm Edelman Berland. The GPI was created following research of more than 7,000 people over the age of

18 through online interviews in 14 countries, across four continents in the globe (this is why it is called ‘global’). The research captures people’s personal, physical and emotional experience with pain and the true impact it has on their lives.

The GPI offers a unique and rich deep dive into the factual dimensions of pain, including: frequency, duration and intensity. In addition, it looks into the emotional dimensions of people’s experience with pain, such as the anxiety linked to pain and the impact on quality of life. The global study also reveals country differences in the approach to relieving body pain and the kind of pain killers – gels/creams or pills – perceived to be effective and being used most frequently.



Over
7,000
of people in
14 countries

1) Body pain includes aches in muscles, tendons, ligaments, and joints (e.g. back pain, neck pain, shoulder pain or osteoarthritis) and does not refer to headaches, cuts, period pain, tooth pain, or more severe pain.

The global study was designed to provide:

- 1) One single metric to assess body pain through a global, intelligent, multifaceted and holistic view.
- 2) A data bank supporting compelling stories and narratives, confirming GSK Consumer Healthcare's leadership in the understanding of body pain and the role of over-the-counter (OTC) pain killers globally.

The research aims to acquire an in-depth understanding of everyday body pain in the world, and answers the following key questions:

- Who experiences body pain?
- How is body pain experienced across cultures?
- How does body pain transcend cultural differences?
- How does body pain impact everyday life?
- Does body pain have an impact on quality of life?
- How do people mitigate the effects of their body pain?

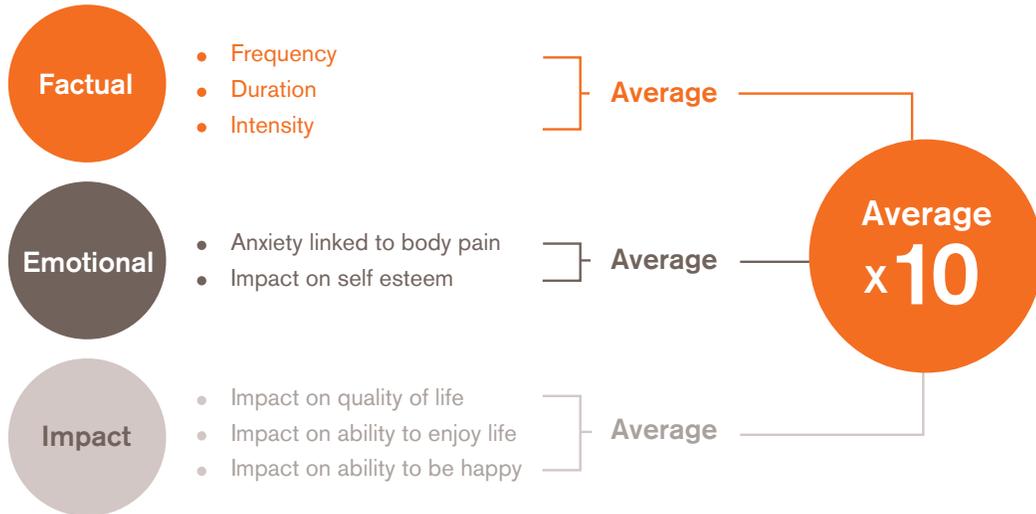
1.2

Introducing the Global Pain Index

The GPI was designed to compare the significance of body pain on a global scale, while taking into account the multi faceted nature of pain. The index was created as a single metric to assess body pain and is built around three dimensions that are informed by background research and insights from the global study: factual body pain indicators, emotional elements and measurement of impact on daily life.

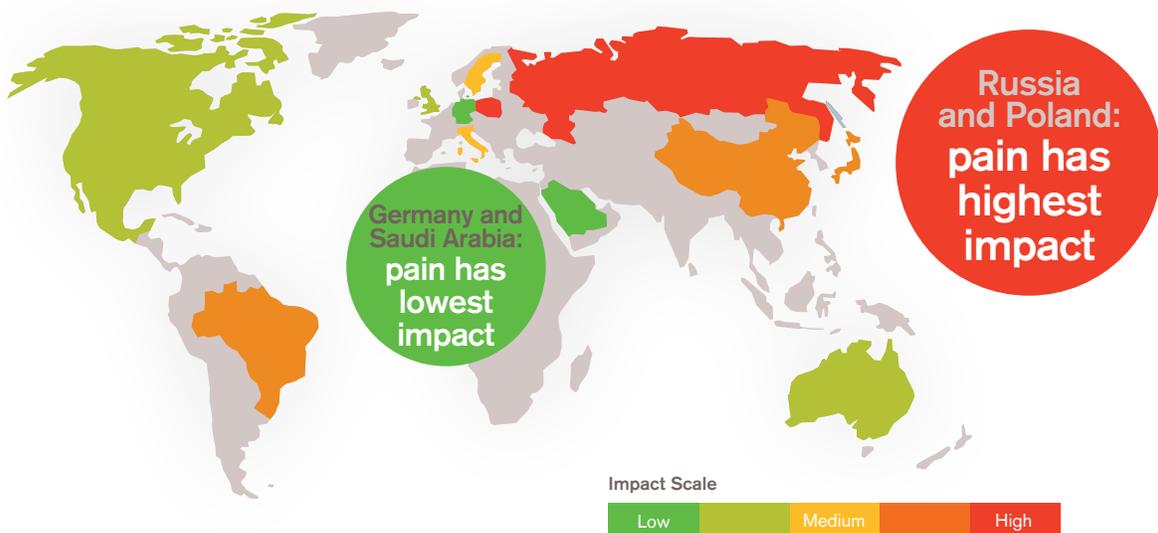
Dimension	Metrics/Factors	Questions
Factual body pain indicators	Frequency	How regularly do you experience pain in your muscles, tendons, ligaments and joints (e.g. back pain, neck pain, shoulder pain or osteoarthritis)?
	Duration	How long were you in pain for (if not taking any pain relief treatment)?
	Intensity	On average, how painful was your pain?
Emotional elements	Anxiety linked to body pain	Which of the below best describes how your pain made you feel? - Scale of anxiety levels
	Impact on self-esteem	Thinking about the impact your pain can have on your general capacity, do you agree with these statements? - My pain impacts my self esteem
Impact on daily life	Impact on quality of life	In your opinion, does experiencing this type of pain decrease your quality of life?
	Impact on ability to enjoy life	Do you agree with each of the following statements regarding the type of pain you experience? - My pain impacts my ability to enjoy life
	Impact on ability to be happy	Do you agree with each of the following statements regarding the type of pain you experience? - I cannot be happy when I experience pain

The index is calculated in a way which allows the three dimensions to carry equal weight in the final number.



Impact of body pain

The outcome is a rich and layered representation of how the countries surveyed compare to each other in the levels of body pain. The GPI shows the significance of pain around the world, with green being the least significant and red the most. Russia and Poland emerged as the countries most affected by body pain, followed by China, Japan, Brazil and Sweden.



1.3

Key findings

In addition to the index, the global study brought several key insights to light.



Body pain cannot be ignored

Body pain is suffered all over the world, with at least 88% of people globally stating that they experience body pain. Their pain cannot be underestimated, with majority of sufferers feeling pain at least once a week and for significant periods of time.



Back pain is prevalent

An overwhelming 94% of people across all 14 countries participating in the global study feel pain either in their back or lower back, both of which are crucial to movement.



Pain impacts physical capacity equally, but is subjective in cultural response

Physical pain is endured similarly across countries in terms of severity, frequency, and duration. However, the way people respond to body pain varies dramatically depending on where they live. A localised and culture-specific approach is important to comprehend how pain is perceived and experienced in different countries.



Impact on everyday life

More than 8 in 10 people state that pain negatively impacts their general capacity, highlighting that body pain has significant repercussions on everyday life. People from all participating countries feel that pain affects their professional life (78% of those working), social life (72%) and even romantic and love life (64%) on a daily basis.



The body and the psyche

67% of people stated that body pain is reducing their quality of life, both physically and emotionally, and the impact is far beyond just restricted physical capacity. It affects their ability to be happy (51%), their self-esteem (35%), and their ability to enjoy their day (63%), uncovering a complex relationship between the body (pain), and the psyche (anxiety).



Medication and treatment

Given the significant impact of body pain, it is crucial for sufferers to control pain. 71% of people need treatment to feel in control of their body pain, although there is a confusion around the causes and best treatment options for body pain.

2.0 DEEP DIVE INTO FINDINGS



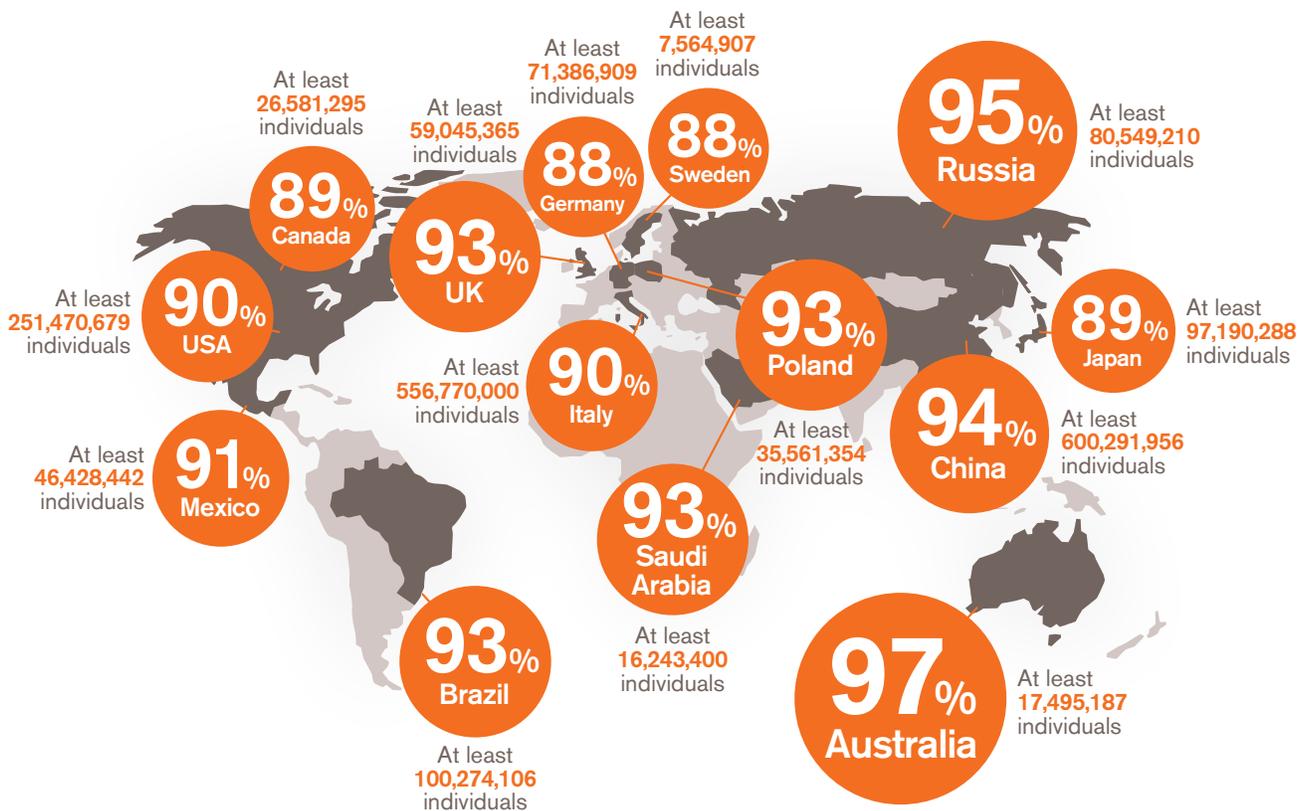
2.0 DEEP DIVE INTO FINDINGS

2.1 Body pain cannot be ignored

65% of people experience body pain at least once a week³, and 69% of people endure long-lasting pain⁴. On top of this, 22% of pain sufferers report severe body pain⁵. Furthermore, 86% of people

admit that pain limits their general capacity⁶ and 67% of people feel it decreases their quality of life⁷. These statistics reveal that body pain, often downplayed, has clear implications and cannot be ignored.

Percentage of people who experience body pain



- 3) Q0. How regularly do you experience pain in your muscles, tendons, ligaments, and joints (e.g. back pain, neck pain, shoulder pain or osteoarthritis)?
- 4) Q5. How long were you in pain for (if not taking any pain reliever treatment)? Long lasting: From a couple of hours to being in constant pain.
- 5) Q4. On average, how painful was your pain?
- 6) Q16. How much impact can this type of pain have on the following aspects of your life? – NET impact
- 7) Q15. In your opinion, does experiencing this type of pain decrease your quality of life?
- 8) These figures were calculated using the incidence rate of individuals accepted into the survey, the online populations of the countries surveyed, and the overall population of each country to reflect the minimum amount of people who would be suffering.

2.2

Back pain is prevalent

The implications of body pain can be linked to where the pain is most often located. 94% of people across participating countries reported pain in their back or lower back and 77% of people reported it in the neck, thereby limiting their movement and physical abilities⁹.

Of this pain, 20% of sufferers report it being arthritis, 58% of sufferers explain the pain as muscular, and 48% of sufferers attribute it to joint pain¹⁰.

67% of people feel pain in the same area consistently¹¹, i.e. in the back, a key area for mobility.

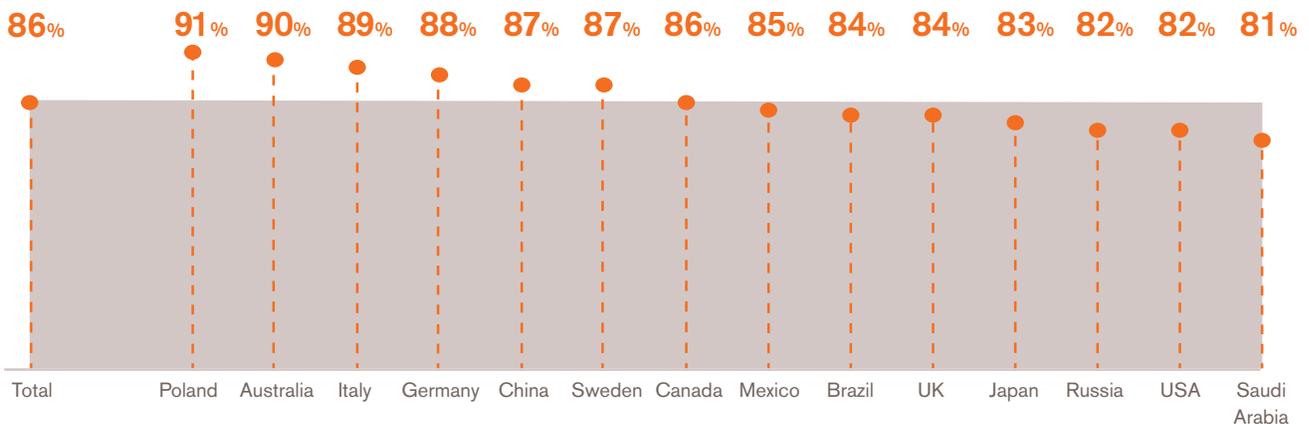
2.3

Pain impacts physical capacity equally, but is subjective in cultural response

When these metrics are compared across the countries, it was found that the physical implications of pain are quite consistent across cultures.

Poland reported the highest impact on general capacity at 91% of people and Saudi Arabia is at the lowest, at 81% of people, both not more than 5% away from the 86% of people average⁵.

Impact of pain on general capacity



9) Q1. Where on your body and at what frequency do you experience this type of pain?
 10) Q8. What is the type of pain you experience?
 11) Q2. How regular is your pain?

When people speak about their pain, cultural differences become clearly apparent, both in the way pain is **described** and **socially mitigated**.

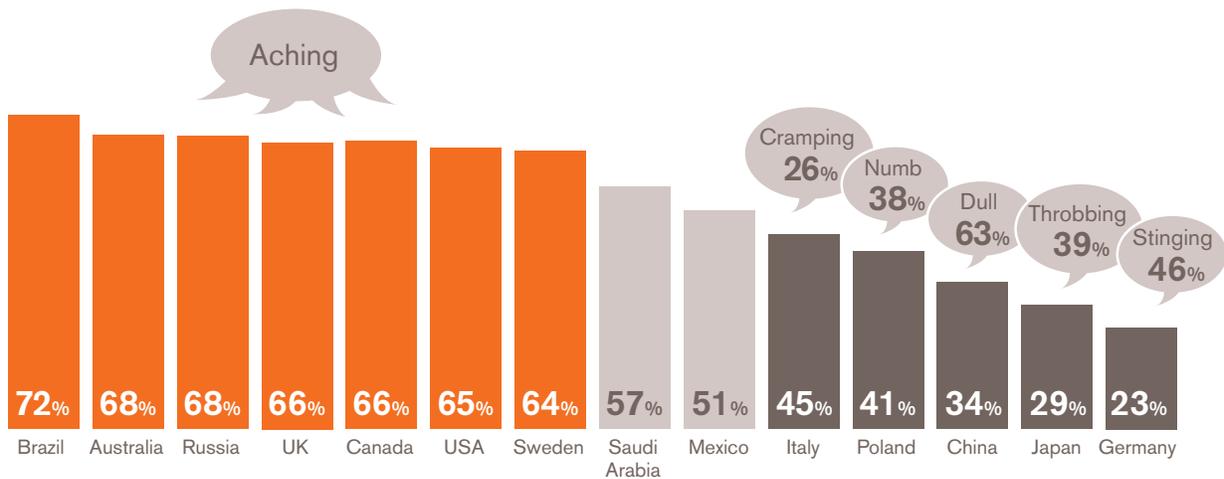
While in some countries the majority of sufferers describe their pain as aching, in others, this word is only used by a proportion of the population. For example in Germany, sufferers describe their pain as stinging, in Japan, throbbing, and in China, dull¹².

This is an important finding for healthcare professionals to take into account, as sufferers may not always have the necessary medical background to pinpoint the type of pain they are experiencing, yet are able to use specific words to describe body pain.

It is crucial to consider the difference in the social mitigation of pain, as it shows that the same pain with the same physical implications will be treated differently in various cultures. This can be seen predominantly in how **vocal** sufferers are about their pain, if they address or **ignore** their pain, and whether pain is perceived as a sign of **weakness** or a **taboo**.

Proportion of people who select “aching” as the best description of their body pain

■ **Over-indexing:** significantly above the global average
■ **Under-indexing:** significantly below the global average

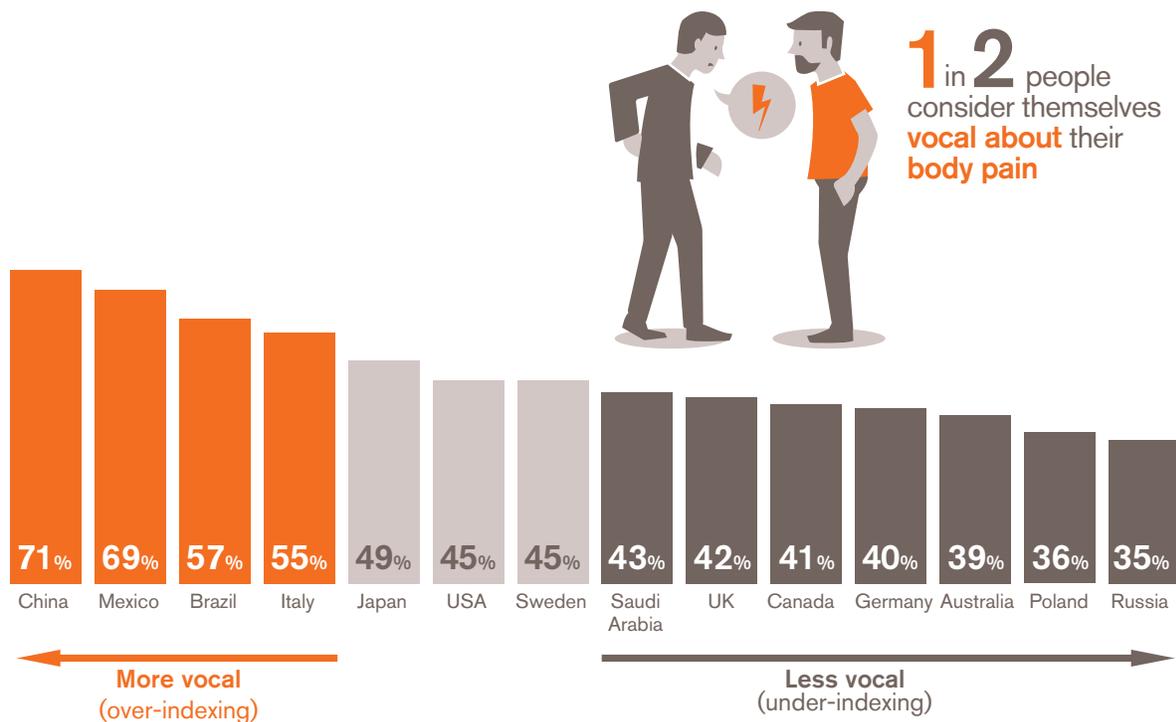


Pain sufferers in China, Mexico, Brazil, and Italy tend to be more vocal about their body pain, while Russian, Polish, Australian, and German populations are quieter about it¹³. The Japanese are closer to the global average in how vocal they are about their body pain, although they are the most likely to ignore it. Australians follow closely behind, sharing the same sentiment¹⁴. Cultures that label body pain as a sign of weakness¹⁵ are also cultures where

more people feel body pain is taboo¹⁶. This is seen in China and Russia, the two countries with a high number of pain sufferers feeling that pain is a sign of weakness and thinking that pain is a taboo. 65% of Chinese feel their pain is a sign of weakness, while 23% feel it is a taboo and 59% of Russians perceive pain as a sign of weakness, with 37% thinking that pain is a taboo.

Amount of people considering themselves vocal about their pain

Over-indexing: significantly above the global average
Under-indexing: significantly below the global average



13) Q13a. How vocal are you about your pain?
 14) Q13b. How you react to your pain: How seriously do you take your pain?
 15) Q27. Do you agree with each of the following statements regarding what this type of pain means?
 Pain is a sign of weakness — yes summary
 16) Q26. Do you agree with each of the following statements regarding the type of pain you experience?
 In my environment, expressing this type of pain is a taboo — yes summary

2.4

Impact on life

The majority of people cannot be themselves when they are in pain. 86% of pain sufferers feel that pain negatively impacts their general capacity⁴ and 67% of people feel it lowers their quality of life⁵. 78% of people who endure body pain say that they have to change their daily routines¹⁷ because of this pain. It comes as no surprise that most sufferers perceive body pain to have a significant impact on all aspects of their lives¹⁸:

Body pain has a ‘ripple effect’

Within their **family**¹⁹, sufferers feel they have difficulty doing their part around the house (e.g. household chores and keeping a clean home). In general, 60% of people believe that their pain worries their family and loved ones. If they have children, their struggle extends to parental guilt, as 3 in 5 (60%) feel they are limited in their ability to play with their children, and more than 2 in 3 (67%) feel they would be a better parent if they weren’t suffering from body pain.

In **relationships**²⁰, sufferers feel vulnerable. Almost half (49%) feel less attractive, and another half of people (52%) see their sexual lives being affected. 46% feel they cannot pay attention to the needs of their partners and feel guilty because of it.



69% of people feel their pain impacts their **family**



64% of people feel their pain impacts their **love life**

-
- 17) Q13c. The impact your pain has on your day-to-day: How much of your routine do you have to alter due to your pain? — NET Impact
- 18) Q16. How much impact can this type of pain have on the following aspects of your life? — NET Impact
- 19) 17. Thinking about the impact your pain can have on your family life, do you agree with these statements? / Q18. Now thinking about the impact your pain can have on your family life with your children, do you agree with these statements? Rebased excluding not applicable
- 20) Q22. Thinking about the impact your pain can have on your romantic love life, do you agree with these statements? Rebased excluding not applicable

With their **peers**²¹, those affected by body pain feel that their social habits are restricted due to pain. 66% of sufferers expressed they cannot go out dancing and 57% of people feel they are unable to attend events. Furthermore, 44% of people feel this affects their ability to interact with others, ultimately isolating them.



72% of people feel their pain impacts their **social life**

In their **work place**²², professionals feel that their body pain affects their motivation (66%), as well as concentration (61%) and, therefore, their performance (48%). Due to their suffering, 2 in 5 (39%) have had to call in sick. Body pain is not only a cause for absence in the work place, but directly impacts productivity and performance, ultimately having an economic impact.



78% of professionals feel this impacts their **work**

A similar trend can be seen on students' ability to succeed. In their **studies**²³, students who suffer from body pain feel it impacts their ability to concentrate (72%), their performance (46%), and their motivation (66%). With 1 in 4 (26%) students missing class because of their suffering, body pain is not only having an impact on today's economy, but also on that of the future.



71% of students feel this impacts their **studies**

21) Q19. Thinking about the impact your pain can have on your social life, do you agree with these statements?
22) Q20. Thinking about the impact your pain can have on your professional life, do you agree with these statements?
23) Q21. Thinking about the impact your pain can have on your studies, do you agree with these statements?

2.5

The body and the psyche

The implications of body pain take a significant toll on sufferers' emotions, with 93% of people feeling negative emotions when they endure body pain²⁴. The study uncovered that body pain not only limits physical abilities, but also causes anxiety and represents a real challenge for emotional wellbeing. 64% of sufferers say that pain compromises their participation in the physical activities they want to participate in, while the same proportion say their body pain significantly impacts their mood²⁵.

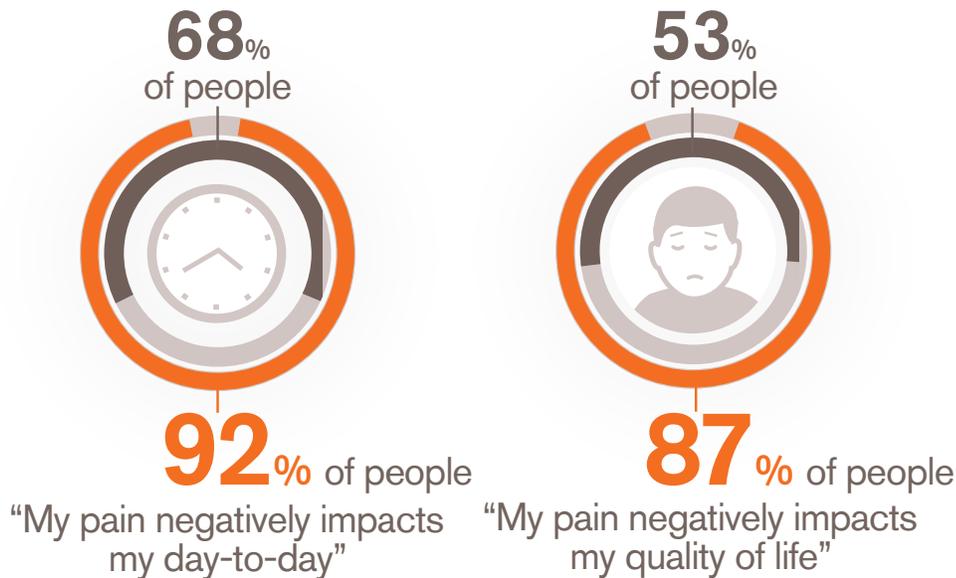
The research revealed a strong correlation²⁶ between anxiety and body pain. It is not just body pain that causes anxiety, but anxiety also further

exacerbates the consequences of body pain, increasing the negative impacts felt by sufferers on their quality of life and day-to-day, as well as general routine activities²⁷, thus demonstrating a vicious chicken or egg relationship.

With 79% of people feeling body pain is a warning from your body that should always be listened to, and 71% of people feeling it is a message from the body to the mind, it is clear that the relationship between body pain and the psyche is tangible and present²⁸. The more anxious a sufferer is, the greater the physical and emotional consequences.

Correlation between body pain, being anxious and the impact on daily life

■ Not-anxious ■ Anxious



24) Q14. Which of the following best describe the emotions you feel when you experience your pain?
 25) Q26. Do you agree with each of the following statements regarding the type of pain you experience?
 26) Based on a driver analysis using correlation technique
 27) Q25. How are the following activities impacted when you experience pain? Excluding I never do this activity and not applicable
 28) Q27. Do you agree with each of the following statements regarding what this type of pain means?

2.6

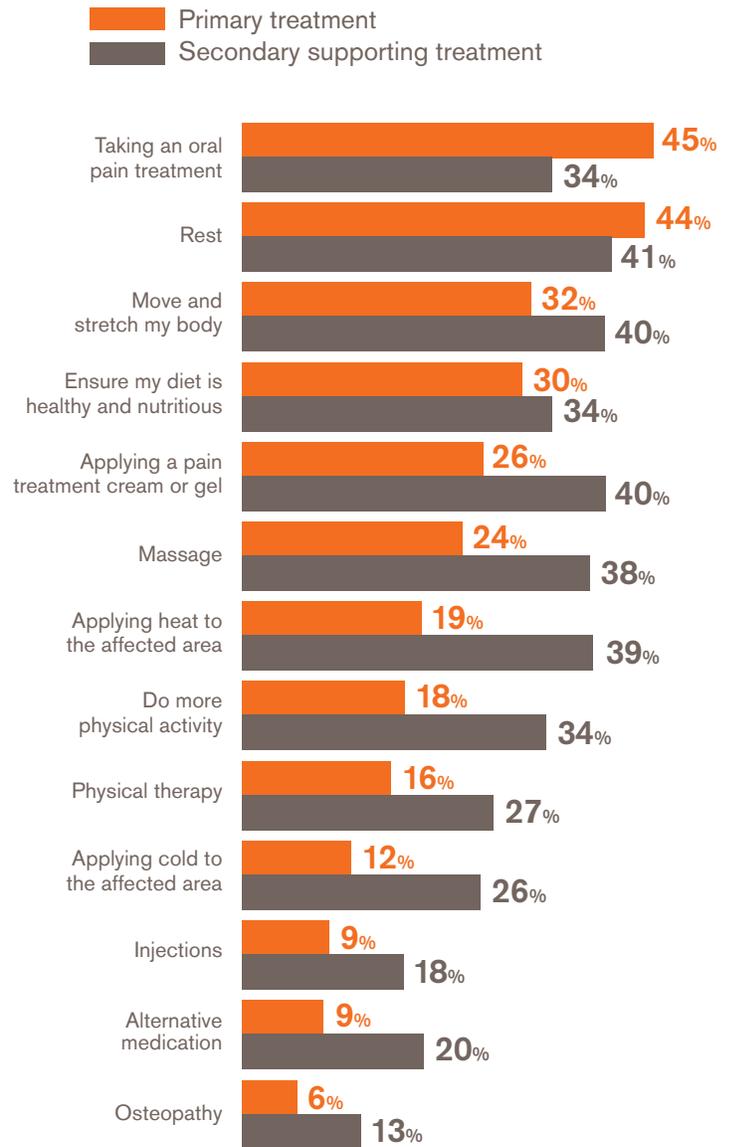
Medication and treatment*

73% of sufferers feel in control of their pain²⁹; however, of this number, 71% of people feel that their control is reliant on medical treatment³⁰, and many combine different treatments to address their body pain³¹.

With 12% of sufferers not aware of the cause of their body pain³², there is a lack of knowledge and education around the science and reasons for pain. In fact, while 73% of people know inflammation is a leading cause of pain, and almost every second person believes their pain can be controlled with over the counter pain relievers, 30% of sufferers are convinced that there is no best ingredient or are unfamiliar with the active ingredient found in their pain relievers, presenting a knowledge gap. This knowledge gap extends to the choice of treatment, with 44% of people treating body pain turning to rest as their primary treatment and 41% of people as their secondary supporting treatment²⁸ even though it is proven that movement is essential for overcoming body pain³³.

There is a great opportunity to improve patient education through healthcare professionals and media and digital campaigns, optimising individuals' treatment of their body pain by using the appropriate combination of systemic and topical pain killers.

How people treat body pain



*For advice on medical issues you should always consult your local medical practitioner.

29) Q29a. How in control do you feel about your ability to keep your pain at a level where it does not impact your day-to-day activity?

30) Q29b. Can your pain be controlled?

31) Q37. And which of these would you say is the primary, first method of treatment compared to your secondary, complimentary support to your treatment?

32) Q7. Do you know what was causing your pain?

33) Malmivarara A, Hakkinen U, Aro T, Heinrichs M-L, Koskenniemi L, Kuosma E, Lappi S, et al. The Treatment of Acute Low Back Pain — Bed Rest, Exercises, or Ordinary Activity?. The New England Journal of Medicine 1995; 332: 351-355

2.7

Conclusion

Body pain cannot be ignored. For sufferers, it happens frequently, lasts for long periods of time, and has a true impact on their lives. Findings from the Global Pain Index clearly show that everyday body pain decreases sufferers' quality of life and impacts their day-to-day, both in constraint of motion as well as emotional wellbeing. Therefore, effective management of body pain is imperative.

The GPI also revealed a striking knowledge gap among sufferers when seeking pain relief, which can be bridged by raised awareness and education. While many are aware of the culprit of their body pain, they remain confused about the most effective treatment to eliminate the common root of pain – inflammation.

The GPI highlights the importance of having a keen understanding of body pain and pain relief so that sufferers can make informed decisions, to lead a more fulfilling life.

3.0

DETAILED METHODOLOGY



3.0

DETAILED METHODOLOGY

Fieldwork dates: 20th November 2014 – 22nd December 2014

Method: Online survey

Survey length: 30 minutes

Sample: Individuals aged over 18 representing the country's general population through age, gender, and region quotas, 500 interviews per country on average, except Saudi Arabia n=300

3.1

Ensuring a robust process

Ensuring samples were representative of countries surveyed: Respondents were selected to form a representative sample of body pain sufferers in the countries surveyed through their distribution of age, gender and region. Social grade was also monitored.

Ensuring translations were appropriate: The survey was translated by native speakers and stress tested with our affiliates in those specific markets.

Ensuring respondents continuously focused on body pain: A succinct definition of body pain was reiterated frequently throughout the survey to ensure respondents were aware of what type of pain they were being questioned on:



Body
pain

“Aches in your muscles, tendons, ligaments, and joints (e.g. back pain, neck pain, shoulder pain or osteoarthritis). The index findings are not referring to headaches, cuts, period pain, tooth pain, or more severe pain.”

Ensuring consistent answers: Flow and order of questionnaire was optimized to ensure consistency. Additionally, data was quality-checked to prevent 'flat-liners' and 'speeders' (respondents who just click through the survey without reading the text).

Minimizing bias in answers: Questions were written by expert MRS certified research practitioners to ensure neutrality.

Process for adverse event reporting: All persons who were to come in contact with the data were fully trained through company material on adverse event reporting.

3.2

About

Voltaren®

Voltaren®, part of GSK Consumer Healthcare, is an over the counter anti-inflammatory pain reliever. The Voltaren® portfolio contains topical and systemic products such as gels, patches and tablets, providing patients with the first-class treatment and guidance for regaining the Joy of Movement. Voltaren® is available in more than 130 countries worldwide. Diclofenac, the active ingredient is one of the world's most widely-used pain-relieving and anti-inflammatory medicines. It has been used effectively since the discovery of the agent in Switzerland 40 years ago. To learn more about pain and how to relieve pain effectively, go to www.global-pain-index.com.

GSK Consumer Healthcare

GSK Consumer Healthcare is one of the world's largest consumer healthcare companies. Our purpose is to help more people around the world to do more, feel better and live longer with everyday healthcare products. We have a heritage that goes back over 160 years. We own some of the world's best loved healthcare brands including Sensodyne, Voltaren, Theraflu, Parodontax, Panadol, Polident, Otrivin, Horlicks and Physiogel.

These brands are successful in over 100 countries around the world because they all show our passion for quality, guaranteed by science. They are inspired by the real wants and needs of the millions of people all over the world who walk into pharmacies, supermarkets and market stalls, or go online and choose us first.

Our goal is to build a global, growing business we call a Fast Moving Consumer Healthcare (FMCH) company, dedicated to everyday healthcare with the scientific expertise and quality that guarantee we meet the demands of consumers, while at the same time working at the speed and with the genuine consumer understanding the modern world expects.





To find out more about the Global Pain Index, go to:
www.global-pain-index.com

