

下背痛是全世界共同的重擔

1. 下背痛是全世界共通的問題

全球疾病負擔研究(Global Burden of Disease studies)將下背痛定義為“在第十二根肋骨下緣一直到下臀的身體背側疼痛，這個疼痛持續至少一天，可能會也可能不會轉移到單側或雙側下肢 [1].

下背痛是全世界共通的問題，在 2017 年的點盛行率預估為全球人口的 7.5%，或者大約是 5 億 7 千 7 百萬人左右 [2].

從 1990 年起，下背痛就是造成失能損失人年數(years lived with disability, YLDs)的主因之一，且一直是世界公衛的頭痛問題.

2. 下背痛通常不是僅僅與一個特定的解剖病理原因相關.

85-95% 的人求診時，都很難找到一個直指其疼痛源頭的解剖病理的原因.[3].

只有 0-7-4.5%的人求診時，可以明確地找出就是因為骨質疏鬆相關的脊椎骨折所導致的下背痛，只有 5%會發現是發炎性脊椎關節病變(spondyloarthropathies⁴)，0.0-0.7%與惡性腫瘤有關，而 0.01%與感染有關 [3].

3. 下背痛在全球都是造成失能的主因.

全世界與下背痛相關的失能從 1990 年到目前都一直在增加.

1990 至 2019 年間，各年齡層中與下背痛相關的失能都有增加，而以 2019 年 50-54 歲的年齡層增加最多。大約有 70%的失能人年數損失是來自於工作人口的失能(20-65 歲) [5].

4. 雖著全球人口的增加及老化，下背痛的人口數也變多了.

從 1990 至 2017 年間，下背痛的人口和下背痛的盛行率不管在任何年齡層中都是增長的。即便綜觀各年齡層下背痛的盛行率，統計到 80-89 歲的年齡層，下背痛的盛行率隨著年齡層上升而上升，但是若以人數來說，目前全球的下背痛人數最多的是落在 50-54 歲這個年齡層[5].

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IASP 匯集了科學家、臨床工作者、健康照護工作者、以及政策制定人員，共同促進並支持疼痛相關研究，且致力於將知識應用在改善全世界的疼痛狀況

整體而言，下背痛的重擔可能是隨著年齡以及人口的增長而增加的，但是也不排除有其他影響因素 [2].

5. 下背痛未必都會導致失能

估算起來，大約每三個人中只有少於一人會因為下背痛而有六個月以上其工作參與、社交活動和自我照護活動會受到嚴重的限制 (嚴重影響的下背痛, high-impact LBP) [6, 7, 8].

即便少於 28%的下背痛人口是嚴重失能，這些人口也佔了因為下背痛而失能人口比的 77% [9].

6. 透過生理心理社會的角度有助於了解如何控制下背痛

儘管有著許多文獻已證實生理、心理、社會因素都會影響下背痛以及下背痛相關的失能，下背痛在全世界所帶來的重擔依然不斷上升。需要有進一步的研究來探討生理心理社會模式，生理心理社會的應用，或者模式及應用都仍需要再調整 [10].

下背痛的控制包含了可以考慮手術、介入、藥物、物理治療、心理、衛教，以及支持下的自主管理模式。

下背痛的控制應融合目前最佳的證據、臨床專業、患者價值觀及期待，以及社區資源。

7. 下背痛所牽涉到的成本與醫療資源使用和失去工作產能有關

在歐洲國家中所做的研究指出與下背痛相關的成本總數大約佔了國內生產毛額的 0.1-2% [11, 12]. 在低所得國家及中低所得國家 (low- and middle-income countries, LMICs) 中與下背痛相關的成本是未知的。考量到低所得國家及中低所得國家中工作人口裡面下背痛的盛行率大約是 52% [14, 15]，與下背痛相關的工作產能損失應該是非常龐大的 [13].

在社會福利系統運作較順利的國家中，超過 80%的下背痛成本來自於一些間接的支出，例如失去產能和失能給付 [16, 17].

不配合下背痛治療指引的狀況也帶來了醫療成本的增加。在沒有完整的保守治療下就接受造影或是手術的下背痛患者，也佔了總成本支出的很大一部分 [18].

8. 嚴重影響的下背痛相關因子

有很多因素與下背痛及失能有關，包含生物、心理、社會及社會環境的因子。這些因子對於低或高所得的社會似乎是重要的 [19].

許多研究一致指出與下背痛相關的失能和高社會成本相關的因素包含了年紀大、健康狀況不佳、心理或心理社會壓力大、基礎功能性失能較嚴重、坐骨神經痛、以及賠償金 [20]. 對於下背痛失能結果具有中等程度至嚴重程度的影響的健康社會決定因子包含了“社會地位剝奪”、低所得、無業、以及職業因素(搬重物、超時工作、以及沒有支援) [21].

9. 公共衛教以及下背痛

以背痛及背痛控制本質來說，公共衛生策略對於將研究結果與公共觀點以及公眾期待之間作橋接是相當重要的 [22]，且可以成功的推廣到國小學童及其父母 [23, 24].

公共大眾傳播媒體的宣導對於要在短期或長期下改變社會上對於下背痛的想法會有中等的成效 [25] 但是對於要長久的改變醫療照護使用或者是失能的結果，成效卻有限 [26]. 宣導的影響效果取決於文化和環境因素，也取決於暴露在什麼訊息當中(“填充式的”宣傳) [27]. 宣導活動應該要與處於下背痛的人一起合作開發 [22].

10. 下背痛及其照護的模式

世界衛生組織 (World Health Organization, WHO) 將高品質的照護定義為“安全、有效、以人為本、及時、有效率、合理又完整的照護”。目標是要將健康結果最大化，預防失能並減少開支 [28]. 全球脊椎照護提倡組織 (The Global Spinal Care Initiative) 依照 WHO 的原則發展出一套照護模式，目標是要轉換全球脊椎的照護，尤其是在低所得及中低所得國家 [29].

有需多以下背痛為主的策略被發展出來且都符合下列這些目標，包含在初期治療失敗後的逐步增強治療照護指引，以及依照預期可能的結果而分級式的提供治療強度相關指引。上述兩種模式都可以改善健康以及開支的結果，尤其是在初級照護中更是如此，不過這些模式成功於否，仍取決於在跨文化中執行和遵從的差異程度，也取決於是否可以依照不同失能軌跡的下背痛患者而有不同的調整 [30, 31, 32, 33].

無論如何，能有一個更全面的方法來控制下背痛的成本是最好的了，尤其是對低所得及中低所得國家來說。依照每個人不同的狀況發展一些方式，藉由將下背痛的控制與原本在控制的慢性疾病整合，才能提升全面的健康照護，而不是雙頭馬車都在做工，也浪費了有限的資源 [35, 36].

11. 健康的社會決定因子，跨部會合作以及下背痛

下背痛是一個“邪惡的”問題，換句話說，社會因子複雜、多種相互影響的成因、沒有明確的解方、且超越了任何一個組織機構或政府部門的權責 [37]。了解且處理慢性疼痛和健康的社會決定因子之間的交互作用需要考慮到的範疇超過了健康相關部會，例如也要考慮教育、就業、青年及老年服務、原住民事務、環境以及經濟部會。

WHO 提倡的所有公共政策都應將健康納入考量的方式可能可以促進跨部會的參與以及合作發展一些改善下背痛的全球重擔的政策[38].

下背痛到底應由特定的公共衛生政策來改善，或是由國家疼痛策略框架來改善，或者兩者的整合，仍是個未知數。

REFERENCES 參考文獻

- [1] Hoy D, March L, Brooks P, Blyth F, Woolf A, Bain C, Williams G, Smith E, Vos T, Barendregt J, Murray C, Burstein R, Buchbinder R. The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. Ann Rheum Dis 2014 ;73: 968–974
- [2] Wu A, March L, Zheng X, Huang J, Wang X, Zhao J, Blyth FM, Smith E, Buchbinder R, Hoy D. Global low back pain prevalence and years lived with disability from 1990 to 2017: estimates from the Global Burden of Disease Study 2017. Ann Trans Med 2020; 8(6): 299-313.
- [3] Finucane LM, Downie A, Mercer C, Greenhalgh SM, Boissonnault WG, Pool-Goudzwaard AL, Beneciuk JM, Leech RL, Selfe J. International framework for red flags for potential serious spinal pathologies. J Orth Sports Phys Ther 2020; 50(7): 350-372.
- [4] Underwood MR, Dawes P. Inflammatory back pain in primary care. Br J Rheum 1995; 34: 1074-1077
- [5] Global Health Group Data Exchange <http://ghdx.healthdata.org/gbd-results-tool> accessed Nov 15, 2020).
- [6] Pitcher MH, Von Korff M, Bushnell MC, Porter L. Prevalence and Profile of High-Impact Chronic Pain in the United States. J Pain 2019; 20(2): 146–160.
- [7] Walker BF, Muller R, Grant WD. Low back pain in Australian adults. Prevalence and associated disability. Journal of Manipulative and Physiological Therapeutics 2004; 27(4): 238-244.
- [8] Dunn KM, Campbell P, Jordan KP. Long-term trajectories of back pain: cohort study with 7-year follow-up. BMJOpen 2013; 3: e003838.
- [9] Hartvigsen J, Hancock MJ, Kongsted A, Louw Q, Ferreira ML, Genevay S, Hoy D, Karppinen J, Glenn Pransky, Sieper J, Smeets RJ, Underwood M. What low back pain is and why we need to pay attention. Lancet 2015; 386: 2145-2191.
- [10] Pincus T, Kent P, Bronfort G, Loisel P, Pransky G, Hartvigsen J. Twenty-five years with the biopsychosocial model of low back pain—is it time to celebrate? A report from the twelfth international forum for primary care research on low back pain. Spine (Phila Pa 1976). 2013 Nov 15;38(24):2118-23.
- [11] Olafsson G, Emma Jonsson E, Fritzell P, Hägg O, Borgström F. Cost of low back pain: results from a national register study in Sweden. European Spine Journal 2018; 27:2875–2881
- [12] Wenig CM, Schmidt CO, Kohlmann T, Schweikert B. Costs of back pain in Germany. European Journal of Pain 13 (2009) 280–286.

- [13] Carregaro RL, Tottoli CR, Rodrigues DdS, Bosmans JE, da Silva EN, van Tulder M (2020) Low back pain should be considered a health and research priority in Brazil: Lost productivity and healthcare costs between 2012 to 2016. *PLoS ONE* 15(4): e0230902. <https://doi.org/10.1371/journal.pone.0230902>
- [14] Jackson T, Thomas S, Stabile V, Shotwell M, Han X, McQueen K. A systematic review and meta-analysis of the global burden of chronic pain without clear etiology in low- and middle-income countries: trends in heterogeneous data and a proposal for new assessment methods. *Anesthesia & Analgesia* 2016; 123(3): 739-748
- [15] Mullerpatan R, Nahar S, Singh Y, Cote P, Nordin M. Burden of spine pain among rural and tribal populations in Raigad District of Maharashtra State of India. *Eur Spine J* 2020 Sep 10. doi: 10.1007/s00586-020-06585-3. Online ahead of print.
- [16] Tymecka-Woszczerowicz A, Wrona W, Kowalski PM, Hermanowski T. Indirect costs of back pain – Review. *Polish Annals of Medicine* 2015; 22: 143–148.
- [17] Dutmer AL, Schiphorst Preuper HR, Soer R, Brouwer S, Ute Bültmann U, Dijkstra PU, Coppes MH, Stegeman P, Buskens E, van Asselt ADI, Wolff AP, Renemanet MF. Personal and societal impact of low back pain. *Spine* 2019; 44(24): E1443–E1451.
- [18] Kim LH, Vail D, Azad TD, Bentley JP, Zhang Y, Ho AL, Fatemi P, Feng A, Varshneya K, Desai M, Veeravagu A, Ratliff JK. Expenditures and health care utilization among adults with newly diagnosed low back and lower extremity pain. *JAMA Network Open*. 2019; 2(5): e193676.
- [19] Igwesi-Chidobe CN, Coker B, Onwasigwe CN, Sorinola IO, Godfrey EL. Biopsychosocial factors associated with chronic low back pain disability in rural Nigeria: a population-based cross- sectional study. *BMJ Glob Health* 2017; 2: e000284.
- [20] Hayden JA, Chou R, Hogg-Johnson S, Bombardier C. Systematic reviews of low back pain prognosis had variable methods and results – guidance for future prognosis reviews. *Journal of Clinical Epidemiology* 2009; 62: 781-796.
- [21] Karran EL, Grant AR Moseley GL. Low back pain and the social determinants of health: a systematic review and narrative synthesis *PAIN* 2020; 161: 2476–2493
- [22] Setchell J, Costa N, Ferreira M, Hodges PW. What decreases low back pain? A qualitative study of patient perspectives. *Scand J Pain* 2019; 19(3): 597–603.
- [23] Nsangi A, Semakula D, Oxman AD, Austvoll-Dahlgren A, Oxman M, Rosenbaum S, Morelli A, Glenton C, Lewin S, Kaseje M, Chalmers I, Fretheim A, Ding Y, Sewankambo NK. Effects of the Informed Health Choices primary school intervention on the ability of children in Uganda to assess the reliability of claims about treatment effects: a cluster-randomised controlled trial. *Lancet* 2017; 390: 374–388.
- [24] Semakula D, Nsangi A, Oxman AD, Oxman M, Austvoll-Dahlgren A, Rosenbaum S, Morelli A, Glenton C, Lewin S, Kaseje M, Chalmers I, Fretheim A, Kristoffersen DT, Sewankambo NK. Effects of the Informed Health Choices podcast on the ability of parents of primary school children in Uganda to assess claims about treatment effects: a randomised controlled trial. *Lancet* 2017; 390: 389–398.
- [25] Buchbinder R, Gross DP, Werner EL, Hayden JA. Understanding the characteristics of effective mass media campaigns for back pain and methodological challenges in evaluating their effects. *Spine* 2008; 33(1): 74–80.
- [26] Gross DP, Russell AS, Ferrari R, Battie' MC, Schopflocher D, Hu R, Waddell G, Buchbinder R. Evaluation of a Canadian back pain mass media campaign. *Spine* 2010; 35(8): 906 –913.
- [27] Suman A, Bostick GP, Schopflocher D, Russell AS, Ferrari R, Battie' MC, Hu R, Buchbinder R, Gross DP. Long-term evaluation of a Canadian back pain mass media campaign. *Eur Spine J* 2017; 26: 2467–2474.
- [28] World Health Organization (WHO). WHO global strategy on integrated people-centred health services 2016–2026: placing people and communities at the centre of health services. WHO, Geneva, 2015.
- [29] Johnson CD, Haldeman S, Chou R, Nordin M, Green BN, Côté P, Hurwitz EL, Kopansky-Giles D, Acaroglu E, Cedraschi C, Ameis A, Randhawa K, Aartun E, Adjei-Kwayisi A, Ayhan S, Aziz A, Bas T, Blyth F, Borenstein D, Brady O'D, Brooks P, Camilleri C, Castellote JM, Clay MB, Davatchi F, Dudler J, Dunn R, Eberspaecher S, Emmerich J, Farcy JP, Fisher-Jeffes N, Goertz C, Grevitt M, Griffith EA, Hajjaj-Hassouni N, Hartvigsen J, Hondras M, Kane EJ, Laplante J, Lemeunier N, Mayer J, Mior S, Mmopelwa T, Modic M, Moss J, Mullerpatan R, Muteti E, Mwaniki L, Ngandeu-Singwe M, Outerbridge G, Rajasekaran S, Shearer H, Smuck M, Sönmez E, Tavares P, Taylor-Vaisey A, Torres C, Torres P, van der Horst A, Verville L, Vialle E, Vijay Kumar G, Vlok A, Watters W, Wong CC, Wong JJ, Yu H, Yüksel S. The Global Spine Care Initiative: model of care and implementation. *European Spine Journal* (2018) 27 (Suppl 6): S925–S945.
- [30] George SZ, Lentza TA, Beneciuk JM, Bhavsard NA, Mundte JM, Boissoneault J. Framework for improving outcome prediction for acute to chronic low back pain transitions. *Pain Reports* 2020; 5: e809.
- [31] Linton SJ, Nicholas M, Shaw W. Why wait to address high-risk cases of acute low back pain? A comparison of stepped, stratified, and matched care. *Pain* 2018; 159: 2437–2441.
- [32] Kongsted A, Kent P, Quicke JG, Skou ST, Hill JC. Risk-stratified and stepped models of care for back pain and osteoarthritis: are we heading towards a common model? *Pain Reports* 2020; 5: e843.
- [33] George SZ, Goertz C, Hastings SN, Fritz JM. Transforming low back pain care delivery in the United States. *Pain* 2020; 161 (12); 2667-2673

- [34] Briggs AM, Woolf AD, Dreinhöfer K, Homb N, Hoy DG, Kopansky- Giles D, Åkesson K, March L. Reducing the global burden of musculoskeletal conditions. Bull World Health Organ 2018; 96: 366–368
- [35] Hoy D, Geere JA, Davatchi F, Meggitt B, Barrero LH. A time for action: opportunities for preventing the growing burden and disability from musculoskeletal conditions in low- and middle-income countries. Best Pract Res Clin Rheumatol. 2014;28(3):377–393.
- [36] Croft P, Louw Q, Briggs AM. Transforming back pain care –why, what, and how? Pain 2020; 12: 2657-2658
- [37] Australian Public Service Commission. Tackling wicked problems: a public policy perspective, 2018 (<https://www.apsc.gov.au/tackling-wicked-problems-public-policy-perspective> accessed November 18, 2020).
- [38] World Health Organization (WHO). Key learning on Health in All Policies implementation from around the world – Information Brochure. WHO, Geneva, 2018 (<https://apps.who.int/iris/bitstream/handle/10665/272711/WHO-CED-PHE-SDH-18.1-eng.pdf?ua=1> accessed November 18, 2020).

CONFLICT OF INTEREST STATEMENT 利益衝突聲明

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