

Bryan Tan Yijia



Consultant, Department Orthopaedic Surgery, Woodlands Health Campus

Clinician-Scientist, LKCMedicine

Assistant Professor, LKCMedicine

Research/Innovation Interests:

- Musculoskeletal Health
- Health Services Research
- Models of Care and Implementation Science
- Health Economics

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Biography

Dr Bryan Tan is currently a Consultant in Orthopaedic Surgery, National Healthcare Group. He has experience practicing both locally and overseas having done several fellowships internationally. He has served as the Singapore Orthopaedic Trainee Committee (SOTC) President and has represented the Singapore Orthopaedic Association (SOA) as its Junior Ambassador.

He is very active in the research scene and is currently pursuing a PhD post specialist training with a focus on health service research, implementation science and health economics in the area of knee osteoarthritis. He has several local and international publications and has presented at multiple international conference. He currently holds several grants with total quantum exceeding S\$2.1 million. He has been recognized for his research achievements through awards such as the Singapore Young Investigator Award (Silver) in 2014 and the Singapore Young Investigator Award, Health Services Research (Gold) in 2019 at the Singapore Health and Biomedical Congress (SHBC).

In addition to his training as an Orthopaedic surgeon and researcher, he has a strong interest in administration, policy making and public health and applies a public health, system lens to musculoskeletal problems. He currently sits on several hospital and national workgroups to deliver new models of care for musculoskeletal health.

He is passionate about combining his interests in research, public health and administration as a surgeon-scientist to develop the niche area in health services research and implementation science using a grounded, evidence based, data-driven approach to guide policy making and transform the care of musculoskeletal patients.

Selected Publications

- Teoh SH, Ang SB, **Tan BY**, Lim PH, Tan CY. Overview of Status of Men's Health in Singapore. Journal of Men's Health. Vol. 6, No. 4, pp. 307-316, December 2009 <https://doi.org/10.1016/j.jomh.2009.07.008>
- **Tan BY**, Lee K. SLAP Lesion with Supraglenoid Labral Cyst causing Suprascapular Nerve Compression: A case report. Malays Orthop J. 2012 Jun;6(SupplA):46-8. <https://doi.org/10.5704/moj.1211.012>
- **Tan BY**, Ng SY, Chong KW, Rikhranj IS. Tibiototalcanal arthrodesis in a Singaporean hospital. J Orthop Surg (Hong Kong). 2013 Apr;21(1):51-4. <https://doi.org/10.1177/230949901302100114>
- **Tan BY**, Lau AC, Kwek EB. Morphology and fixation pitfalls of a highly unstable intertrochanteric fracture variant. J Orthop Surg (Hong Kong). 2015 Aug;23(2):142-5. <https://doi.org/10.1177/230949901502300204>
- **Tan BY**, Pereira MJ, Ng J, Kwek EBK. The ideal implant for Mayo 2A olecranon fractures? An economic evaluation. J Shoulder Elbow Surg. 2020 Nov;29(11):2347-2352. <https://doi.org/10.1016/j.jse.2020.05.035>
- Ding BTK, Soh T, **Tan BY**, Oh JY, Mohd Fadhl MFB, Rasappan K, Lee KT. Operating in a Pandemic: Lessons and Strategies from an Orthopaedic Unit at the Epicenter of COVID-19 in Singapore. J Bone Joint Surg Am. 2020 Jul 1;102(13):e67.. <https://doi.org/10.2106/jbjs.20.00568>
- **Tan BY**, Ding BTK, Pereira MJ, Skou ST, Thumboo J, Car J. Collaborative model of care between Orthopaedics and allied healthcare professionals trial (CONNACT) - a feasibility study in patients with knee osteoarthritis using a mixed method approach. BMC Musculoskelet Disord. 2020 Sep 4;21(1):592. <https://doi.org/10.1186/s12891-020-03611-9>
- **Tan BY**, Pereira MJ, Yang SY, Hunter DJ, Skou ST, Thumboo J, Car J. Collaborative model of care between Orthopaedics and allied healthcare professionals in knee osteoarthritis (CONNACT): study protocol for an effectiveness-implementation hybrid randomized control trial. BMC Musculoskelet Disord. 2020 Oct 16;21(1):684. <https://doi.org/10.1186/s12891-020-03695-3>
- **Tan BY**, Thach T, Munro YL, Skou ST, Thumboo J, Car J, Car LT. Complex Lifestyle and Psychological Intervention in Knee Osteoarthritis: Scoping Review of Randomized Controlled Trials. Int J Environ Res Public Health 2021 Dec 3;18(23):12757 <https://doi.org/10.3390/2Fijerph182312757>
- Gao JF, Yeo JW, Ho AF, Goh AX, **Tan BY**, Chong SL, Sng BL, Chan ESY, Ong ME, Siddiqui FJ. Anaesthesia and analgesia in the emergency care setting for treating distal radius fractures in adults. Cochrane Database of Systematic Reviews 2022, Issue 5. Art. No.: CD015104. <https://doi.org/10.1002/14651858.CD015104>
- SWL Ho, SKA Phua, **Tan BY**. Bringing orthogeriatric care for elderly patients with hip fractures to Asia. Lancet Reg Health West Pac. 2022 Mar 15;21:100418. <https://doi.org/10.1016/j.lanwpc.2022.100418>
- **Tan BY**, Ng J, Ng WX, Yuan W, Kwek EBK. The Evolution of Olecranon Fractures and Its Fixation Strategies. JOIO 56, 1385–1393 (2022). <https://doi.org/10.1007/s43465-022-00646-z>

- Pereira MJ, Antonio DM, **Tan BY**, Yam MGY, Ramason R, Chua ITJ. Bundled payments for hip fracture surgery are associated with improved access, quality, and healthcare utilization, but higher costs for complex cases: An interrupted time series analysis. Journal of Orthopaedic Trauma: July 15, 2022 - Volume - Issue - 10.1097/BOT.0000000000002459 <https://doi.org/10.1097/bot.0000000000002459>
- Yang SY, Woon EYS, Griva K, **Tan BY**. A Qualitative Study of Psychosocial Factors in Patients With Knee Osteoarthritis: Insights Learned From an Asian Population. Clinical Orthopaedics and Related Research ():10.1097/CORR.0000000000002526, December 27, 2022. | <https://doi.org/10.1097/corr.0000000000002526>
- **Tan BY**, Goh ZZ, Lim CJ, Pereira MJ, Yang SY, Tan KG, Tan AC, Liang P, Haxby JA, Briggs AM, Hunter D, Skou ST, Thumboo J, Car J. Singapore Knee Osteoarthritis Cohort (SKETCH): protocol for a multi-centre prospective cohort study. BMC Musculoskelet Disord. 2023 Feb 7;24(1):104. <https://doi.org/10.1186/s12891-023-06207-1>
- Pua YH, **Tan BY** (co-1st author), Low J, Woon EL, Yeo SJ, Clark RA, Bettger JP, Pereira MJ, Tan CY, Thumboo J. Discordance between self-reported and performance-based physical function in patients who have knee osteoarthritis: Associations with pain intensity and negative affect. Journal of Arthroplasty <https://doi.org/10.1016/j.arth.2023.03.044>
- Chua SKK, Soh QY, Lim CJ, Ring D, Chua ITH, Kwek EBK, **Tan BY**. Social determinants of outcomes in non-operatively treated proximal humerus fractures. JSES International. <https://doi.org/10.1016/j.jseint.2023.05.013>
- Yeo JY, Lim CJ, **Tan BY**. Adaptation and validation of the chronic illness-related shame scale among patients with knee osteoarthritis in Singapore. BMC Musculoskeletal <https://doi.org/10.1186/s12891-023-06707-0>
- Bowden JL, Hunter DJ, Mills K, Allen K, Bennell K, Briggs AM, Dziedzic K, Hinman RS, Kim JS, Martinez N, Quicke J G, **Tan BY**, van der Esch M, Verges J, Eyles J. The OARSI Joint Effort Initiative: Priorities for osteoarthritis management program implementation and research 2024–2028. Osteoarthritis and Cartilage Open <https://doi.org/10.1016/j.ocarto.2023.100408>
- Nah KMF, Pereira MJ, Hemaavathi M, Wong WS, Lim CJ, **Tan BY**. Study on proximal humerus evaluation of effective treatment (SPHEER) – what is the effect of rehabilitation compliance on clinical outcomes of proximal humerus fractures. BMC Musculoskeletal <https://doi.org/10.1186/s12891-023-06894-w>
- Pua YH, Yeo SJ, Clark RA, **Tan BY**, Haines T, Bettger JP, Woon EL, Tan HH, Tan JWM, Low J, Chew E, Thumboo J. Cost and outcomes of Hospital-based Usual care versus Tele-monitor self-directed Rehabilitation (HUATR) in patients with total knee arthroplasty: A randomized, controlled, non-inferiority trial. Osteoarthritis and Cartilage <https://doi.org/10.1016/j.joca.2023.11.017>
- Goff AJ, Jones LE, Lim CJ, **Tan BY**. A cross sectional study exploring the relationship of self-reported physical activity with function, kinesiophobia, self-efficacy and quality of life in an Asian population seeking care for knee osteoarthritis. BMC Musculoskeletal disorders <https://doi.org/10.1186/s12891-024-07181-y>

- Ong PW, Lim CJ, Pereira MJ, Kwek EBK, **Tan BY**. Achieving satisfactory functional outcomes in conservatively treated proximal humerus fractures: relationship between shoulder range of motion and patient-reported clinical outcome scores, JSES International, 2024, ISSN 2666-6383, <https://doi.org/10.1016/j.jseint.2024.02.003>.
(<https://www.sciencedirect.com/science/article/pii/S2666638324000628>)

Notable Research Awards & Grants

Name of Awards & Grants	Year Obtained
National Medical Research Council (NMRC) Research Training Fellowship	2019
NHG-LKCMedicine Clinician-Scientist Fellowship (CSF) Award	2019
Singapore Young Investigator Award, Health Services Research (Gold)	2019
Rehabilitation Research Institute of Singapore (RRIS) RRG Award for “Gait Analysis in Knee Osteoarthritis”	2019
NHG Population Health Grant for “Collaborative model of care between Orthopaedics and Allied Care Professionals Trial (CONNACT PLUS)”	2020
MOH Traditional Chinese Medicine Research Grant for “Heat and Acupuncture Randomised Controlled Trial to Manage Osteoarthritis of the Knee (HarmoKNEE): An Effectiveness-Implementation Hybrid Study”	2021
INEX-OSCAR (Clinical/Population Health Research), College of Clinician-Scientist, Academy of Medicine	2022
Osteoarthritis Research International (OARSI) Word Congress Highest Rated Abstract	2023
Public Sector Transformation (PST), Exemplary Innovator Award	2023
NMRC Population Health Research Grant (PHRG) for “Singapore Knee Osteoarthritis Cohort Study (SKETCH)”	2023
National Research Foundation (NRF) Intra-CREATE Thematic Grant for “Built Environment in Falls and Arthritis Study (BE-FIT)”	2023

Media Coverage

- ‘CONNACT Plus’ featured on Straits Times (12 Oct 2023):
<https://www.straitstimes.com/singapore/health/healthcare-providers-must-work-with-range-of-partners-to-build-healthier-communities-masagos>
- ‘CONNACT Plus’ featured on Lian He Zao Bao (12 Oct 2023)
<https://www.zaobao.com.sg/news/singapore/story20231012-1442178>
- ‘CONNACT Plus’ featured on 8 world (12 Oct 2023):
<https://www.8world.com/singapore/osteoarthritis-2265391>
- ‘CONNACT Plus’ featured on LinkedIn (25 Mar 2024):
https://www.linkedin.com/pulse/connect-plus-staying-active-mobile-healthier-gw2uc?trk=public_post_feed-article-content