**2018 ASM Abstract Submission form**

**All Raine Study researchers** are invited to submit an abstract to present their research findings at the Raine Study Annual Scientific Meeting [8 minute oral presentation followed by 2 mins of questions from the floor].

**Early career researchers and PhD students** are encouraged to present on behalf of their Special Interest Groups. The Raine Medical Research Foundation have kindly donated **two prizes of $750 each** **for the best presentations** by students and early career researchers.

Please complete this form and return to the Raine Study, attention: Aggie Bouckley

At [raineadmin-SPH@uwa.edu.au](mailto:raineadmin-SPH@uwa.edu.au) **by Friday 19th October 2018**.

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| **Researcher Bio (2-3 sentences – will be included on the final program)** |
| Mr. Jonathan Loh currently holds qualification of BSc (Physiotherapy) and has about 4 years of working experience as a physiotherapist in Singapore. He is currently completing his post-graduate studies (Masters of Clinical Physiotherapy - Musculoskeletal) at Curtin University. He has previously taken part in group research investigating the effects of dance therapy in children with cerebral palsy.  Ms Qing Ying Loh graduated with a BSc Hons (Physiotherapy). She has about 4 years of working experience as a physiotherapist in Singapore's restructured hospital. She is currently completing her post-graduate studies (Masters of Clinical Physiotherapy - Musculoskeletal) at Curtin University. |
| **Title:** *Title of presentation* |
| Associations between musculoskeletal pain and moderate-to-vigorous physical activity and sitting time in middle-aged adults of the Raine Study cohort. |
| **Speaker:** *Title, name, position, institution, address, telephone, email* |
| Jonathan Loh, Curtin University k.loh2@postgrad.curtin.edu.au  Qing Ying Loh, Curtin University qingying.loh@postgrad.edu.au |
| **Special Interest Group:** |
| **Musculoskeletal SIG** |
| **Co-investigators:** |
| Dr Juliana Zabatiero  Prof Anne Smith  Prof Leon Straker  Prof Peter O’Sullivan  Miss Shirlyn Sim |
| **Abstract:** *Approximately 600 words* |
| **Background:** The main aim of this study was to examine the associations between presence of pain, pain experience and pain-related belief and moderate-to-vigorous physical activity (MVPA) and sitting time in middle-aged adults from the Raine Study Generation 1 cohort.  **Methods:** Cross-sectional study of middle-aged participants (n=1,098) enrolled in the Raine Study. Participants completed a questionnaire that provided details on demographic characteristics, presence of pain, pain experience, pain-related belief, time spent in MVPA and sitting, and symptoms of mental health disorders. Participants also underwent a clinical assessment in which measures of body weight and height were collected. Information on pain experience was extracted from the short-form Örebro Musculoskeletal Pain Questionnaire (SFO-MPQ). A pain problem severity index was formulated, focusing on reported locations, chronicity and intensity of pain. Data regarding pain-related belief was derived from responses to a statement from the SFO-MPQ, ‘An increase in pain is an indication that I should stop what I’m doing until the pain decreases’. Data on amounts of time spent in MVPA and sitting were obtained from the International Physical Activity Questionnaire (short-form). Multivariate regression analysis was performed while controlling for confounding variables (i.e. age, gender, body mass index, highest level of education attained, and levels of depressive symptoms). The first regression model explored for differences in time spent in MVPA between those with and without pain. In those with pain, associations were explored between time spent in MVPA and pain experience and pain-related belief. These regression analyses were repeated for time spent sitting on weekday and weekend. Robust standard error was used to account for departures from normality and standard regression diagnostics performed to explore for nonlinear associations. As data for time spent in MVPA was highly skewed, negative binomial regression was used; whereas linear regression was used for sitting time.  **Results:** There were no significant associations found between MVPA and presence of pain (IRR: 0.96, 95%CI: 0.80 – 1.2), pain problem severity index (IRR: 1.01, 95%CI: 1.00 – 1.03) or pain-related belief (IRR: 1.01, 95%CI: 0.99 – 1.04) after adjusting for confounding variables. No significant associations were found between weekday sitting time and presence of pain (6.40 mins, 95%CI: -28.0 – 40.8) or pain problem severity index (-0.27 mins, 95%CI: -2.95 – 2.41) after adjusting for confounding variables. Similarly, no significant associations were found between weekend sitting time and presence of pain (5.81 mins, 95%CI: -25.8 – 37.4) or pain problem severity index (1.05 mins, 95%CI: -1.50 – 3.60). However, pain-related belief was significantly associated with weekday sitting time (4.16 mins, 95%CI: 0.19 – 8.13) and weekend sitting time (4.52 mins, 95%CI: 0.83 – 8.21) after adjusting for confounding variables.  **Conclusion:** This study suggests that pain-related belief is associated with sitting time in middle-aged adults of the Raine Study. It is thus important for clinicians to assess and address pain-related beliefs in people with musculoskeletal pain. |

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| X | By placing an ‘X’ in this box the lead investigator certifies that all investigators listed above have read and agree to the contents of this form. |

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| **Corresponding author:** | **Date:** |
| Juliana Zabatiero | 19th Oct 2018 |