**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 **by Friday 19th October 2018**.

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| **Researcher Bio (2-3 sentences – will be included on the final program)** |
| Dr Koya Ayonrinde is a consultant gastroenterologist and hepatologist at Fiona Stanley Hospital. He completed his PhD on “the epidemiology and significance of nonalcohlic fatty liver disease in adolescents using the Raine Cohort. Koya is currently a Raine Medical Research Foundation Clinician Research Fellow for a study on “the epidemiology and significance of irritable bowel syndrome in adolescents”. |
| **Title:** *Title of presentation* |
| The relationship between gastrointestinal symptoms, health care utilization and perceived health status in adolescents – A cohort study. |
| **Speaker:** *Title, name, position, institution, address, telephone, email* |
| Dr Koya Ayonrinde, consultant gastroenterologist and hepatologist, Fiona Stanley Hospital, Murdoch, WA. (oyekoya.ayonrinde@health.wa.gov.au |
| **Special Interest Group:** |
| **Cardiometabolic SIG** |
| **Co-investigators:**  |
| Assoc. Professor Frank Sanfilippo, Leon Adams, Assoc. Prof Oyedeji Ayonrinde, Dr Therese O’Sullivan, Professor John Olynyk, Professor Wendy Oddy, Dr Monique Robinson |
| **Abstract:** *Approximately 600 words* |
|  **Background:** Gastrointestinal symptoms, particularly abdominal pain, account for a large proportion of primary care, hospital outpatient or emergency department visits, and hospitalisations. Abdominal pain and diarrhoea are among the most common reasons for encounters with general practitioners in Australia. Also, constipation has been associated with lower socio-economic status, female sex, low consumption of dietary fibre, fruit and vegetables, increasing age and body mass index. Gastrointestinal symptoms impact on the everyday life of individuals, as regards food choices, medication use, and interference with education, employment, social activities, mental health and relationships. However, there are sparse data regarding what constitutes normal bowel habits and the significance of gastrointestinal symptoms on health resource utilisation and wellbeing in Australian adolescents. **Aims:** We examined bowel patterns and the relationship between gastrointestinal symptoms, depression/ anxiety, health care utilization and perceived health status in population-based adolescents, in order to describe normal population patterns and significance of gastrointestinal symptoms.**Methods**: Seventeen-year-old adolescents (n=1279) participating in the Western Australian Pregnancy (Raine) Cohort Study participated in a cross-sectional assessment, involving detailed questionnaires regarding health, lifestyle, physical assessments and blood tests. Questionnaires were self-administered by the adolescent, and a parallel questionnaire completed by the parent or primary care provider. Questions included medical history, gastrointestinal symptoms during the preceding 3 months, health care professional attendance and diagnoses during the preceding 12 months, medication use and adolescent self-perceived health status. Gastrointestinal questions included the presence and frequency of abdominal pain (excluding period pain), and other gastrointestinal symptoms, usual stool consistency and frequency of bowel motions, changes in the frequency and consistency of bowel motions. Medication use, including analgesics, laxatives or anti-diarrhoeal, antispasmodics, antidepressant medications, vitamins/ minerals were recorded. Body mass index was calculated and associations with gastrointestinal symptoms sought. Data were analysed to identify patterns of bowel motions, and associations between gastrointestinal symptoms, depression and anxiety, health care professional attendance, medication use, and to determine predictors of abdominal pain and of self-rated poor-fair health status.**Results**: Abdominal pain was the most common gastrointestinal symptom, reported by 457 (35.7%) of adolescents, and affecting females more than males (41.6% vs. 29.1%, p<0.001). Adolescents with abdominal pain experienced more bloating (27.2% vs. 11.2%, p<0.001), depression (55.6% vs. 33.6%, p<0.001), anxiety (14.3% vs. 2.6%, p=0.001), attendance with a health care professional and use of analgesics or antidepressants, compared to those without abdominal pain (p<0.05 for all). The dominant pattern of bowel motions was passage of stool that was “not too hard and not too soft” (90%), and 3-7 times per week (74%). Using multivariate logistic regression analysis, female sex, history of depression and school health nurse attendance were independently associated with abdominal pain (p<0.005 for all). Amongst gastrointestinal symptoms only nausea and vomiting (p<0.05) were independently associated with poor-fair perceived health status.**Conclusions**: Abdominal pain is common in adolescents and associates with depression, anxiety, health care utilization and reduced perceived health status. Since chronic abdominal pain often precedes depression and chronic use of analgesics, early psycho-social assessment and appropriate psychological or pharmacological intervention in adolescents is recommended to modify the trajectory of chronic pain, depression and anxiety |

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|  | 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:** |
| Dr Koya Ayonrinde | 28 October 2018 |