

Moving research into practice in adolescent wellbeing.

Biology, Emotions, and Transitions Studies Lab



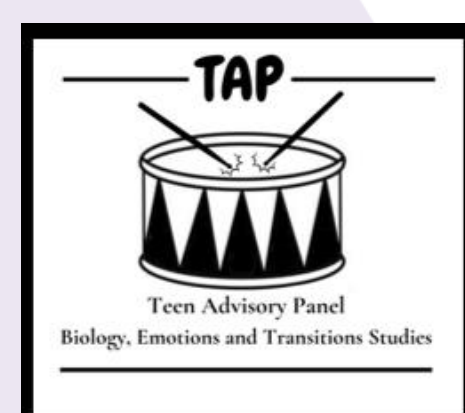
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OUR RESEARCH

The interplay of biology, emotions, behaviour and experience have both immediate and enduring effects on the person, and these effects are especially significant during the developmental transitions of adolescence.

The psychological developments of adolescence co-occur with rapid change in biological process and structures. Two key processes are pubertal development and brain maturation which shape individual psychosocial processes, influenced by the social context. The interplay is complex and has far-reaching impacts of psychological and physical health.

The research and applied work of members of the Biology, Emotions, and Transitions Lab emphasizes the psychobiological approach to understanding adolescent wellbeing. We apply our work in a range of ways, including developing prevention and intervention programmes to support adolescent health, the development of public education courses, and providing guidance on best practice in psychobiological research with adolescents.



Our research benefits from the guidance of the Teen Advisory Panel, a group of young people who guide thinking and practices in our research.

The 2025 Teen Advisory Panel and members of the BEaTS Team are pictured below (with permissions). We are committed to including the perspectives of people who are expert-by-experience and incorporating public and patient involvement in our research and activities.



There are times of life when the person experiences significant transitions, with a dynamic interplay of biology, behaviour, cognitions, and social processes. This interplay has profound impact on the person's lifelong health and wellbeing.

OUR CONTRIBUTIONS

Our work has demonstrated that daily experiences during adolescence contributes to cardiometabolic health, that psychobiological stress responses are shaped by pubertal development, and that psychobiological processes shape internalising and externalising behaviours and health outcomes. Our research publications have contributed evidence to psychoneuroendocrine and psychoneuroimmunology frameworks that track the links between biological, psychological and social processes at periods of transition, such as at puberty and at perimenopause; read more about this work and its contribution to the research literature at beats-lab.com.

We also share our expertise in methodological advances and practice, making an impact on our discipline by guiding how measures are collected from adolescents by researchers, via expert consensus statements and invited chapters, for example 'Psychobiological Assessments' by Eadaoin Whelan, Jennifer Cooney-Quane and Samantha Dockray in Elsevier's Encyclopedia of Adolescence, links to this and other high-impact outputs are at beats-lab.com. Our research has been cited in policy documents internationally, for example the World Health Organisation, US Dept. Health, and Ireland's Dept. of Education and Skills, shaping policy relevant to health and wellbeing of adolescents in different regions of the world.

Our work has also focused on interventions to support positive physical and psychological wellbeing for young people. With collaborators in UCC Student Medicine, Business Information Systems and Public Health, we developed an app to reduce the harms associated with drug use by college students. The app, 'MyUse', has been provided to 150 000+ people across Ireland. We have also co-developed free, online courses, called 'BrainPower' and 'MyBrainpower' to support people's understanding of the complex developmental processes that take place in late adolescence, these were developed with colleagues in Neuroscience, and Occupational Science and Therapy. These courses, taken by people across the world, have been noted as exceptional public education, including by the National Forums for Enhancement of Teaching and Learning. Our research team also provide guidance on school-based programs to support people as they transition from childhood to adolescence, for example guiding the delivery of wellbeing workshops at 260+ schools in Ireland, and applied research partnerships supported by the Dept. of Health, Ireland, the Dept. of Education and Youth, Ireland, SpunOut, Ireland and An Garda Síochána.

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