



PRESS RELEASE

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Building Resilience is Key to Good Mental Health: NUS Youth Epidemiology and Resilience Study

With data collected over the COVID-19 pandemic period from 2020 to 2022, the NUS Youth Epidemiology and Resilience (YEAR) study involved 3,336 young people aged 10 to 18 and describes the association of resilience, risks, and protective factors in developing internalising and externalising symptoms, and how resilience mitigates mental health distress

Singapore, 26 April 2023 – Resilience holds the key to good mental health, Singapore’s first nationwide epidemiology study to understand and establish the mental health and resilience of Singapore’s adolescents, between the ages of 10 to 18 years old, has shown.

The study is led by Associate Professor John Wong, Lin Jo Yan and Yeo Boon Khim Professor in Mental Health and Neuroscience, Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine) and a consortium of investigators from the Department of Psychological Medicine at NUS Medicine, NUS Mind Science Centre, Institute of Mental Health and Erasmus University Medical Center, The Netherlands, in collaboration with the Ministry of Education (MOE). The study grant was jointly awarded by Tote Board and NUS Mind Science Centre seed grant.

The study looked at four key areas – mental health, resilience, identity development and media activity use. With data collected over the COVID-19 pandemic period from 2020 to 2022, the study involved 3,336 young people aged 10 to 18 and attempts to describe the association of resilience, risks, and protective factors in developing internalising and externalising symptoms, and how having resilience can mitigate mental health distress.

These findings were presented at the NUS Youth Academic Symposium titled, ‘The Emotional Challenges of Youth and Resilience Building’, organised by NUS Medicine and the Mind Science Centre earlier today.

“In current times, today’s adolescents face a spate of distinctive challenges which is unique to this era they are living in, where they experience evolving sociocultural systems, evolving parenting styles, importance of peer relationships, the change in academic learning environments, while adjusting to the psychosocial effects of the Covid-19 pandemic and cultivating their own identity. Understanding the state of mental well-being among the youth in Singapore and the challenges that they face, will help to inform and guide the planning of prevention and treatment services in Singapore, especially to those at risk,” said Associate Professor John Wong, the lead Principal Investigator of the study.

Youth mental health and resilience

The association between mental health and resilience is well documented in current literature and the YEAR study affirms this important relationship. Respondents in the YEAR study with higher good mental health scores also had higher resilience scores.

Respondents were assessed on their mental health symptoms based on a youth self-reported survey. About one in three youth in Singapore reported internalising mental health symptoms such as depression, anxiety and loneliness, with those aged 14 to 16 reporting more serious symptoms. Meanwhile, roughly one in six young people said they experienced externalising mental health symptoms, such as hyperactivity, rule-breaking, aggression.

Internalising symptoms can be presented as depression, anxiety and somatisation, the manifestation of psychological distress by the presence of physical symptoms. Externalising mental health symptoms include Attention-Deficit Hyperactivity Disorder (ADHD), conduct disorder, displaying aggression and exhibiting disruptive behaviours. The combination of these internalising and externalising symptoms informs the extent of mental health distress that the youth may be experiencing.

Respondents who self-reported clinical-level mental health symptoms were then invited for an in-depth face-to-face or online assessment in the second phase of the study, which aimed to establish the prevalence of mental health disorders among adolescent respondents. Adolescent respondents and their parents also responded to survey questions on parent-child dynamics and quality of life. From the YEAR study, it was reported that one in 10, or 12% of adolescents met full diagnostic criteria for having at least one current mental health disorder, while 6% of adolescents had previously met criteria for at least one disorder more than a year ago and are no longer meeting the criteria for the same disorder, suggesting that their condition may have improved.

Taken together, the findings suggest the importance of distinguishing between adolescents experiencing mental health symptoms influenced by the pandemic, stressors in life and developmental challenges, and those with diagnosed mental health disorders, which are influenced by a confluence of biological, psychological and social factors. Targeted support would need to be offered to both groups of adolescents.

Resilience is the ability and capacity of an individual to prepare for, withstand, adapt and progress in the face of adversities. The Singapore Youth Resilience Scale (SYRESS) measures the multi-dimensional aspects of resilience, using 10 different domains such as Perseverance/Commitment, Positive Self-image/Optimism, Relationship/Social Support, Humour/Positive Thinking, Emotional Regulation, Spirituality/Faith, Personal Confidence/Responsibility, Personal Control, Flexibility, and Positive Coping. These 10 domains can be seen as assets that can strengthen overall resilience.

The resilience scores differed significantly across the age groups for most of the domains. Among the higher percentile groups, the resilience scores are stable across the age groups. However, there is an upward trend in resilience scores in the lower 10th percentile in each age group, indicating that resilience can be improved over time as the youth, especially those in the vulnerable “tween years”, mature and accumulate life experiences as they age. It is also important and an opportunity for society to reach out to the lower resilience groups for interventions.

Data obtained from both SYRESS and Youth Self-Report (YSR) showed that the resilience factor is highly correlated to the internalising score, where those with lower resilience run a higher risk of experiencing internal psychological distress that is difficult to spot on the surface.

Using both scales, clinical practitioners and specialists recognise the close association between resilience and mental health distress. This allowed better identification of those with low resilience who have high internalising scores, so that there is emphasis on early detection of mental health distress and timely interventions can be put in place to assist the child, instead of resorting to knee-jerk reactionary measures.

“The YEAR study has demonstrated a strong association between mental health and resilience. To better deal with and manage challenges and adversities in life, it is important that our youths build a fortified sense of resilience. The ages between 10 to 18 years old have been identified to be the window of opportunity, where the youths are entering puberty and have the time and space to work on themselves to grow into the young adults they want to be. Parents and educators alike can be informed on how to use these resilience domains as a guide to nurture their child, and facilitate their youth’s growth,” said Assoc Prof Wong.

Parents versus adolescents’ self-reported mental health symptoms

The study also found that parents were less likely to identify mental health symptoms in their children. About 10% of parent respondents reported observing clinical-level mental health symptoms in their children, compared to adolescents’ self-reported mental health symptoms. This suggests that there is room for parents to be involved more deeply in identifying and supporting their children’s mental health, such as by raising awareness of mental health literacy among parents.

Identity Development

The Assessment of Identity Development of Adolescence (AIDA), is a new, precise kind of self-reported clinical instrument that has been newly incorporated in Singapore to enable differentiation between health and impaired identity development. Tweaked and customised to better reflect the local language and cultural practices in Singapore, the questionnaire measures discontinuity and incoherence, features of identity diffusion, to better understand the underlying reasons that often drive anxiety and depression and cause disturbance to the identity development of Singaporean adolescents.

Identity diffusion was found to be strongly associated with higher YSR internalising, externalising and total problem scores, validating the AIDA as a clear and effective indicator of mental health symptoms in youth that can be used in clinical practice.

Identity development is a critical phase of emotional and psychological growth that starts at puberty. However, there are instances where identity disturbance occurs, such as when a person experiences discontinuity or incoherence in his sense of identity, or identity diffusion.

These two domains are critical nodes in the area of identity construct and development. Other factors which have a high correlation to identity disturbance include depression, anxiety, eating disorder, borderline personality traits, peer relationship disturbance and self-esteem, where identity development is rooted as the core ideological feature and an important psychological construct.

Youths with higher resilience tend to possess fewer impairments in identity development, evidenced from the way identity diffusion has moderate or negative correlations with most SYRESS domains. The focus on building resilience would aid in the prevention and remedy of identity disturbances and mental health difficulties in youth.

Media Utilisation

Digital devices and media overuse and its association with youth emotional disturbance continues to be a key area of concern among parents and educators, and a subject of many adolescent studies among clinical practitioners globally. To challenge the commonly-held assumption that the state of one's mental well-being is highly dependent on the amount of time spent in the digital space, researchers from the YEAR study went a step further to scrutinise the productive and unproductive areas of usage of digital devices and content, and how the youths are spending their time in the digital space and the duration of use, from the multitude of digital devices that youths use daily.

"Instead of dismissing digital devices and media content as the root cause of evil, these findings surface the crucial need to examine the current media literacy level among the population. It is important for educators and parents alike to be educated on how to reap the benefits of this rich digital space to complement various modes of learning," said Assoc Prof Wong.

Data from the self-reported Media Activity Form submitted by the youths and their parents revealed that parents largely underestimate the time and extent their youths use their digital devices daily. While the extent and length of digital use is worrying, it appears that the time spent on socialising activities and listening to music online were significantly and positively correlated with both YSR internalising and externalising problem scores. This indicates that youths usually turn to these two avenues to address their inner psychological void, to better internalise and process their emotions in a productive way. With more youths turning to digital media as a source of self-therapy and emotional regulation, parents and educators need to recognise their critical role in establishing strong foundations of media literacy and habits early in their child's life.

"Our youths have been exposed to digital world from a very tender age, compared to previous generations. Parents need to set the tone and model the responsible use of media for their children at home. With a solid foundation in media content literacy, guided by discernment and mindfulness, our adolescents can better exploit the limitless opportunities from the different digital avenues to discover and build interests, that would make their digital experience more enriching and experiential," added Assoc Prof Wong.

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About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established our NUS Overseas Colleges programme in more than 15 cities around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit <https://nus.edu.sg>.

About the NUS Yong Loo Lin School of Medicine (NUS Medicine)

The NUS Yong Loo Lin School of Medicine is Singapore's first and largest medical school. Our enduring mission centres on nurturing highly competent, values-driven and inspired healthcare professionals to transform the practice of medicine and improve health around the world.

Through a dynamic and future-oriented five-year curriculum that is inter-disciplinary and inter-professional in nature, our students undergo a holistic learning experience that exposes them to multiple facets of healthcare and prepares them to become visionary leaders and compassionate doctors and nurses of tomorrow. Since the School's founding in 1905, more than 12,000 graduates have passed through our doors.

In our pursuit of health for all, our strategic research programmes focus on innovative, cutting-edge biomedical research with collaborators around the world to deliver high impact solutions to benefit human lives.

The School is the oldest institution of higher learning in the National University of Singapore and a founding institutional member of the National University Health System. It is one of the leading medical schools in Asia and ranks among the best in the world (Times Higher Education World University Rankings 2023 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2023).

For more information about NUS Medicine, please visit <https://medicine.nus.edu.sg/>.

Chinese Glossary

Youth Epidemiology and Resilience Study (YEAR Study)	青少年流行病学和心理韧性研究
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