



Navigating the Changes of Adolescence

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Adolescence is an important transition to adulthood, marked by identity development, growing independence, and major brain changes. It brings opportunity and growth, but also risk in an increasingly complex world. Even as they spend more time with their peers, trusted adults remain crucial to their development and well-being. Positive adult relationships provide support, guidance, and skills that build resilience and help them navigate the changes of adolescence.

Adolescence is the transition from childhood to adulthood with intense growth and change. There are major physical, emotional, cognitive, and social changes as young people develop their identity and independence. As they get older, more is expected of taiohi, they begin to take on adult responsibilities such as driving or employment and are increasingly held accountable for their actions.¹ Most taiohi do well, but need trusted adults to provide support, guidance and to teach them skills they need to navigate their world.

This article begins by exploring key areas of change during adolescence such as identity, emotional and social development, sensation seeking, and sleep. It then describes the neuroscience of adolescent brain development underlying these changes. Finally, the implications of these changes are considered, including what adults can do to support adolescents through this period.

This important period brings opportunities for new skills and growing independence, but also new challenges as taiohi explore the world beyond their whānau.² Most adolescents navigate this stage successfully, with a youth survey indicating that most taiohi in Aotearoa have strong friendships, feel safe and loved in their whānau, can express their identity, and feel connected to their culture.³

Although the process of adolescence is similar, each person's own development is unique; influenced by genetics, personality, experiences, and environment.⁴ There are also individual differences in the age of the onset of puberty, and how long puberty lasts.⁵ For neurodiverse youth or those affected by adversity, the developmental changes of adolescence may present additional complexities. Recognising these differences helps adults better understand and support youth as they navigate this life stage.

What is changing during adolescence?

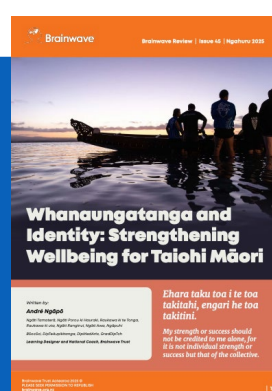
Adolescence is a time of change for taiohi in many different areas, which overlap and influence each other. Some of these are described below.

1. Identity formation

During this time adolescents are developing a sense of who they are, what they believe, where they belong, and who they want to become.⁶ They may experiment with appearance, roles, behaviour, and may 'try on' different identities.⁷ If they identify with one or more

marginalised groups (e.g., gender identity, culture or sexuality), they may experience more challenges than those who identify with more privileged groups.⁸ Supportive adults can help by offering stability, and acceptance during this time.

For many taiohi Māori, whanaungatanga (kinship, relationships, and collective belonging) and cultural identity remain central to their wellbeing. Having a strong Māori cultural identity (one that can take many forms) is linked to positive health and social outcomes. When that identity is strengthened through whanaungatanga, taiohi are better supported to navigate experiences of racism, discrimination, and cultural isolation.⁹



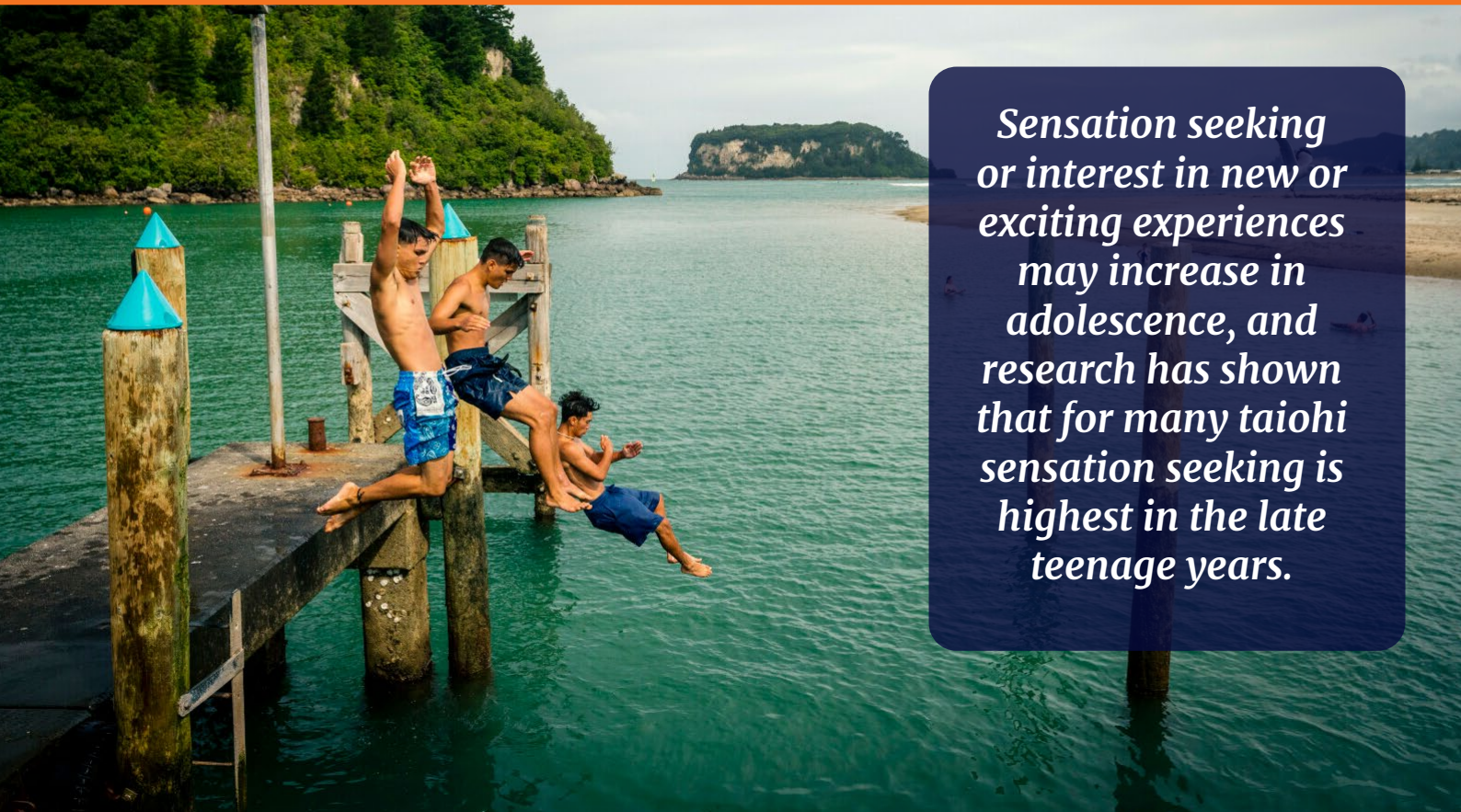
To learn more about wellbeing for taiohi Māori read:

Whanaungatanga and Identity: Strengthening Wellbeing for Taiohi Māori (2025)

2. Emotional development

Taiohi can experience stronger and more variable emotions due to brain and hormonal changes, interacting with social and environmental factors.¹⁰ During adolescence, they often become more self-conscious and highly sensitive to others' opinions.¹¹ There is also more expected of them, and adolescents are under increased pressure to manage their emotions. Adolescence is also a high-risk period for the onset of mental health issues.¹²

Adolescents may struggle with emotional control at times, however, as they mature, their ability to regulate emotions and think before reacting improves.¹³ Like any new skill, this requires opportunity to practice. Although on some days, and in some circumstances, an adolescent may make a mature decision or handle a situation well, doesn't mean they won't struggle in another.



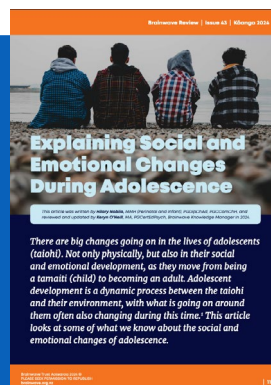
Sensation seeking or interest in new or exciting experiences may increase in adolescence, and research has shown that for many taiohi sensation seeking is highest in the late teenage years.

3. Social development

Adolescents gradually become more skilled at recognising complex emotions, subtle social signals, and other people's perspectives as peer and romantic relationships develop.¹⁴ During adolescence, peers become increasingly important, and supportive friendships are related to positive developmental outcomes,¹⁵ improved self-esteem,¹⁶ development of empathy¹⁷, and can protect against the negative effects of adversity. Positive peer friendships and developing social skills also help taiohi build the foundations for healthy adult relationships.

Social acceptance by their peers and 'fitting in' become more important during adolescence, and they may change their behaviours to gain peer approval.¹⁸ This development happens across multiple environments such as home, school, work, and community and is influenced by expanding peer groups, growing independence, adult role models, and other life changes.¹⁹

Earlier childhood experiences and relationships lay the foundation for how well taiohi navigate these transitions.²⁰ Those with secure, supportive upbringings are generally better equipped, while others may need additional guidance and support.



To learn more about social and emotional changes in adolescence read:

Explaining Social and Emotional Changes During Adolescence (2024)

4. Sensation seeking and new experiences

Sensation seeking or interest in new or exciting experiences may increase in adolescence,²¹ and research has shown that for many taiohi sensation seeking is highest in the late teenage years.²² This drives youth to explore new environments, roles, and experiences which is an important part of their development. Sensation seeking can also fuel exploration helping adolescents build larger social networks and improve wellbeing.²³ It is important for adults to support this

exploration, while helping them learn to manage potential risks.

5. Sleep

Sleep patterns usually change during adolescence due to both biological and social factors:²⁴

- *Biological factors* – puberty affects hormones that regulate the homeostatic sleep drive and circadian rhythms.²⁵ During adolescence *melatonin* is produced increasingly later in the evening, meaning taiohi naturally fall asleep and wake later.²⁶ As such, their sleep cycle may be up to two hours later than that of children and adults.
- *Social factors* – more independence, homework, jobs, socialising, and screen time may lead to later bedtimes.²⁷

Sleep is especially important during periods of heightened brain development,²⁸ however many youth are not getting enough sleep;²⁹ especially those who have experienced adversity.³⁰ Lack of sleep has a greater impact on adolescents compared with adults, and insufficient sleep can affect brain regions involved in emotional regulation and decision-making.³¹ This can affect many areas of health and behaviour such as:

- poor mental health (e.g., anxiety and depression)³²
- risky behaviours³³
- self-harm³⁴
- suicide³⁵

Parents and whānau can play an important role in supporting better sleep in taiohi, especially those who have experienced trauma or adversity. This is by helping them develop good sleep practices through role-modelling consistent sleep/wake times, pre-bed routines, and limiting screen use before bed.³⁶



To learn more about the importance of sleep in adolescence read:

Why Sleep Matters for Rangatahi (2022)

What changes are happening in the brain during adolescence?

Puberty marks the beginning of adolescence, which is usually between 8-13-years in females and 9-14-years in males, although there is considerable variation due to genetic differences and environment.³⁷ Puberty starts when the *hypothalamus* begins producing a hormone called *gonadotropin-releasing hormone* (GnRH), which triggers other hormones and reorganisation of both the structure and function of their brain with increased *neural plasticity* or change.³⁸ Two key structural changes are:

1. *synaptic pruning* of brain connections made in childhood that are not being used, making their brains more efficient, and
2. *myelination of axons*, which enables the brain to send messages more rapidly and efficiently.

This means that during adolescence the relative amount of *grey matter* (cell bodies of neurons) decreases, and *white matter* (myelinated axons) increases throughout the brain.³⁹ The development of parts of the brain throughout adolescence however is not consistent as different regions reach maturity at different times.⁴⁰ There is also considerable individual variation in development due to genetic and environmental factors.⁴¹

Brain regions do not act in isolation, as function and behaviour are the result of many interconnected areas and systems of the brain.⁴² During adolescence there are changes both within and between brain regions, and how they are connected.⁴³ In childhood connections are largely between nearby brain regions, whereas in adolescence regions further away from each other become more interconnected. This increases *functional connectivity* where different brain regions function simultaneously, and these functional networks support more advanced thinking and behaviour.⁴⁴

Another change during adolescence is that some *neurotransmitters* such as *serotonin* and *dopamine* begin to affect the brain differently.⁴⁵ Neurotransmitters are biochemicals made by neurons that pass messages to other neurons. Dopamine levels for example increase in the *ventral striatum* which is associated with processing rewards, motivation and decision-making.⁴⁶ This has implications for learning and memory as well as impulsivity and risk taking.⁴⁷

Other factors that are important to consider in adolescence

Although youth go through a similar process of adolescence, there are considerable individual differences in how this is experienced. Differences in physical and mental health, personality, temperament as well as their environment all contribute to development. It is also important to consider societal and systemic factors that affect development and wellbeing. Factors such as inequities, marginalisation, and discrimination play a significant role in the lives of some taiohi. For example, those who are gender and sexuality diverse, have a disability, and/or are experiencing the ongoing impacts of colonisation and racism may need additional support.⁴⁸

Some specific things that may need to be considered are:

1. Neurodiversity

For neurodiverse taiohi (such as those with autism, ADHD, dyslexia, or dyspraxia) the changes of adolescence can be more complex.⁴⁹ During adolescence, neurodiverse taiohi may experience changes in social sensitivity, expectations of self-regulation, and peer relationship changes differently from neurotypical taiohi. This is because systems, social environments, and support structures are primarily designed for neurotypical taiohi. Recognising these differences helps adults better understand and support taiohi through fostering acceptance,⁵⁰ accessing appropriate support as needed, and creating inclusive social environments as they navigate this life stage.⁵¹

2. Adversity

For many youth, positive experiences in their childhood have laid a solid foundation for their adolescence. Unfortunately, some adolescents have experienced adversity through direct harm, such as physical, sexual or psychological maltreatment, and/or indirect harm, such as having a parent in prison.⁵² They may also have experienced toxic stress due to severe or ongoing stressful events without adequate adult support.⁵³ These experiences can have negative impacts on development, health, and wellbeing during adolescence and throughout adulthood.⁵⁴

The physical and psychological effects of adversity can be adaptive changes for children trying to survive in an unsafe world. However, these changes can be harmful over time.⁵⁵ These brain changes are associated with emotional dysregulation, increased

risky behaviour, substance use, and attachment challenges.⁵⁶

Sometimes children who appeared to show minimal effects of adversity during childhood may experience the effects of that adversity when they hit adolescence. This is called *latent vulnerability*, where the effects of the adversity are seen later in life, with an elevated risk of health problems in adolescence and adulthood.⁵⁷

The positive news is that that recovery is possible through increased *neuroplasticity* in adolescence, where the brain can reorganise through forming, or reforming neural connections. Targeted interventions such as trauma-focused therapies, and supportive caregiving can make a positive difference.⁵⁸ Increasing protective factors and strategies to reduce risk factors adolescents can increase the chance of positive outcomes.



To learn more about adversity in adolescence read:

Understanding Rangatahi Who Have Experienced Adversity (2025)

3. Poverty

There is an increasing body of research that has examined the effects of child poverty on the health and development of young people.⁵⁹ Child poverty includes both household income factors, and non-income factors, such as material hardship, food insecurity, and housing instability. Unfortunately, many adolescents have experienced poverty in Aotearoa New Zealand, with higher rates of child poverty here than in most other OECD nations. Data from the Growing Up in NZ study indicates that by the time they are 12 years old, 20% of youth have experienced material hardship at some point during their childhood.⁶⁰

Poverty can adversely affect the physical and mental health of adolescents as well as their brain development. These impacts can continue into adulthood, as well as affecting future generations.



To learn more about poverty in childhood and adolescence read:

The Impacts of Child Poverty (2026)

What are the implications of these changes?

During adolescence, taiohi are exposed to an increasingly complex world with greater expectations placed on them. There is a lot of change within the taiohi, as well as their environments and their social relationships.⁶¹ These changes are all important for their transition to adulthood, and provide opportunities to learn, and develop their identity.⁶² A consequence of this growing independence can be increased exposure to risky situations such as driving and access to alcohol. The implications of some of these are discussed below:

1. Risk taking

Sensation seeking and risk-taking may increase in adolescence⁶³, as they are predisposed to explore and learn about their world. For most taiohi this can be positive, leading to increased creativity and personal development (e.g. learning to drive, public speaking and developing new strengths). However, for some this can result in dangerous behaviour such as hazardous drinking or antisocial behaviour.⁶⁴ Learning how to manage risks and potential consequences is a valuable life skill, and our taiohi need scaffolding and support from adults to learn how to do this safely. For example, in teaching someone to drive, early lessons would be on a quiet street, and as their abilities improve, moving to busier streets and more complex intersections.

Adolescent risk-taking is complex, as it is influenced by both the individual and their environment.⁶⁵ There are large individual differences in risk taking,⁶⁶ and risk-taking is influenced by many things⁶⁷ such as home environment during childhood⁶⁸, current social and physical environment⁶⁹, situation specific factors (e.g. being with friends, using alcohol, lack of sleep, and stress)⁷⁰, and opportunities for risky behaviour.⁷¹

Concerning risk-taking happens in a minority of young people, often those who have had difficulty with impulse control and managing behaviour since childhood. It is especially important that these young people have positive adult support, avoid alcohol and drugs, and get adequate sleep to reduce the risk of negative risk-taking.



To learn more about risk-taking in adolescence read:

Understanding Adolescent Risk-taking (2023)

2. Alcohol and other drug use

The most commonly used drugs by adolescents are alcohol, nicotine, and cannabis due to availability, perceived lack of risk, and use in social settings.⁷² Drug use in adolescence is a major cause of harm, and is strongly linked with violence, sexual assault, road accidents, mental illness and suicide.⁷³ Aside from these immediate consequences, the use of recreational drugs during adolescence can produce long-lasting changes in developing brain structures and functioning, which can affect behaviour, emotion, and cognition.⁷⁴ These changes can also increase the risk of psychiatric and substance use disorders in adulthood.⁷⁵ Furthermore, these drugs are often used in combination which can increase their effects on development⁷⁶ and risk of addiction for each drug.⁷⁷

Alcohol

As their brains are still developing, alcohol can affect adolescents differently to adults. As such, there is no recommended safe level of alcohol consumption for young people.⁷⁸ Although many adolescents do not drink alcohol, some teenagers in Aotearoa are drinking regularly and consuming large quantities. Binge drinking (5 or more standard drinks in one session) is especially harmful, and NZ data from the Youth19 study showed that more than one in five youth (22%) reported binge drinking in the last four weeks.⁷⁹

There are many negative effects of alcohol including short-term harm to themselves and others due to risky behaviours (e.g., violence, dangerous driving, and unsafe sexual activity), and long-term effects on cognitive abilities, decision-making, and health.⁸⁰ Alcohol may also affect brain structures (e.g., reduction in size of *prefrontal cortex* and *hippocampus*)⁸¹ and functioning, as alcohol use is associated with poorer attention, cognition and educational achievement.⁸² Early adolescent alcohol consumption is also associated with alcohol dependency in adulthood.⁸³

Delaying the age that teens start drinking (and intoxication) is the most effective way to reduce the risk of alcohol harm.⁸⁴ Parental attitudes towards alcohol are important as teenagers who are allowed to drink at home by their parents are more at risk for alcohol-related harm than those who are not allowed to drink.⁸⁵



To find out more about alcohol in adolescence read:

Alcohol Use in Adolescence – What the Research Tells Us (2022)

Nicotine

While we have known about the negative effects of nicotine on the developing brain for a long time, the rise of electronic cigarette products (vaping) has led to an increase in nicotine use among adolescents.⁸⁶ In the Youth19 study, vaping was more common than smoking with 12% reporting using vapes monthly and 8% at least weekly.⁸⁷ In addition to the harmful effects of electronic cigarette products on the body including the lungs,⁸⁸ nicotine has many harmful effects on adolescent development, mood, and behaviour. Adolescent nicotine exposure is also associated with impairments in working memory, attention, and *prefrontal cortex* activity.⁸⁹

Cannabis

Despite being illegal at any age, many youth use cannabis, as data from the Youth19 study showed

that cannabis use by secondary school students is now more prevalent than tobacco use, with 23% reporting that they had used cannabis, and at least 4% were using cannabis weekly.⁹⁰ Cannabis use in adolescence has been shown to have stronger acute behavioural and cognitive effects than for adults.⁹¹ Use of cannabis in adolescence may be particularly damaging to the developing brain, as it has been found to affect many areas of the brain including the *prefrontal cortex*, *hippocampus*, *ventral tegmental area*, and *striatum* which are important for processing rewards, learning and memory.⁹² Cannabis is also a risk factor for some psychiatric disorders, especially schizophrenia and other psychosis.⁹³



To learn more about cannabis in adolescence read:

Short-term Highs, Long-term Risks?(2020)

3. On-line behaviour

As adolescence is an important time for emotional, social and identity development, it is important to consider the impact of recent technologies such as social media on taiohi. The issue of social media in adolescence is complex, with research demonstrating that both excessive use and abstinence can be problematic.⁹⁴ Although excessive passive social media use (such as scrolling) is associated with poor mental health,⁹⁵ there are potential benefits in active online engagement for social connection, identity development, and a sense of belonging and solidarity; especially for taiohi in marginalised groups.⁹⁶ It appears that how social media is used is the most important predictor of well-being, as active participation in authentic ways is associated with higher self-concept.⁹⁷ Regardless of how we feel about it, social media is a part of our society, and there are risks and benefits of social media.⁹⁸ Our taiohi need help to develop skills to manage the use of media technology and be safe online.

Healthy, supportive relationships with trusted adults form the foundation of taiohi wellbeing and are one of the most important protective factors.



How can we help taiohi navigate adolescence?

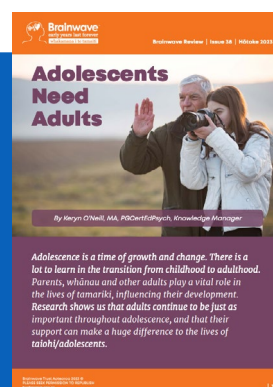
As we have learned more about what is happening in adolescence and how important these changes are, we have gained a better understanding of what taiohi need:

1. Adolescents need adults

Healthy, supportive relationships with trusted adults form the foundation of taiohi wellbeing and are one of the most important protective factors. A positive whānau environment helps taiohi develop emotional regulation, social skills, and confidence. Strengthening relationships can make a huge difference.

Even as they spend more time with their peers, trusted adults remain crucial to their development and well-being. Adolescents still need caring, competent adults in their whānau, schools, and communities to

guide, support, and nurture them. Strong connections with caring adults can protect against poor outcomes and can enhance wellbeing through better mental and physical health, stronger emotional regulation, improved academic performance and healthier relationships.⁹⁹



To learn more about the important role of adults read:

Adolescents Need Adults (2023)

2. Everyday basics

Some of the things that are important for adolescence are good sleep,¹⁰⁰ physical activity,¹⁰¹ and a healthy diet.¹⁰² Not only can these everyday basics support their physical and mental health as well as their brain development, but they also encourage healthy living habits which will benefit them through their adulthood.

3. Avoiding alcohol and other drugs

Delaying the start of drinking alcohol and taking other drugs is the most effective way of protecting the adolescent brain from alcohol and drugs, which can harm both short- and long-term brain development. This is particularly important for those who have experienced adversity or have family history of alcohol and drug related problems.

4. Supporting social development

Fostering positive peer friendships and developing social skills help taiohi build the foundations for healthy adult relationships. Promoting open communication, providing opportunities for positive social interactions (e.g. sports, clubs and volunteering), and teaching conflict management skills will help taiohi develop the skills they need.¹⁰³

5. Building resilience

Resilience is the ability to 'bounce back' or show an adaptive response to stressful events and adversity.¹⁰⁴ It is not about being unaffected by the experience, but being supported to cope with the situation and still develop well. As such, resilience is a shared process between the person and the environment (i.e., it is not something an individual either has or lacks). Resilience can be fostered through supportive relationships, learning stress coping skills and building competence and confidence to help taiohi practice adaptive responses.¹⁰⁵

6. Some adolescents need additional support

Those who have experienced adversity and/or have problems in their relationships with their parents, are particularly in need of support from other adults.¹⁰⁶ It's important that adults are aware that adversity is likely to have negatively influenced an adolescent's development, health, and behaviour. They may need additional support and/or skilled professional support to build skills that help them to navigate this time successfully.

7. We all have a role to play

It is important that taiohi feel connected to competent and caring adults such as teachers in their whānau and community.¹⁰⁷ We need to challenge systematic and structural inequities due to colonisation, poverty, and racism, and build safe, inclusive communities. As a community we need to recognise the opportunities and challenges of adolescence, increasing social support for families with adolescents to help them thrive. Rather than blaming or criticising youth, we should be asking how we can help.

Conclusion

Adolescence is an important transition to adulthood marked by many physical, emotional, cognitive, and social changes as young people develop their identity and independence. This is also an important period of brain development, with reorganisation of the structure and function of the brain.

It is a time of opportunity and growth but also risk in an increasingly complex world. Most taiohi do well, but need trusted adults to provide support, guidance and to teach skills they need to navigate their world. When taiohi face challenges, positive adult relationships provide essential support, foster resilience and help them navigate the changes of adolescence.



To learn more about the resiliency in adolescence read:

Resilient Rangatahi (2018)

Glossary of Māori words

Taiohi – Youth or adolescent/s.

Whānau – Family, inclusive of extended, fluid, and kin-like bonds.

Whanaungatanga – Kinship, relationships, profound sense of collective belonging.

Endnotes

1. Icenogle, & Cauffman, 2021
2. Ciranka & Van den Bos, 2021
3. Malatest International, 2021
4. Galván, 2021
5. Steinberg, 2023
6. Steinberg, 2023
7. Galván, 2021
8. Roy et al., 2021; Malatest International, 2021
9. Williams et al., 2018; Greaves et al., 2023
10. Kuther, 2017
11. Schriber & Guyer, 2016
12. Kretzer et al., 2024
13. Steinberg, 2023
14. Galván, 2021; Kilford et al., 2016
15. Güroğlu, 2022
16. Luijten et al., 2023
17. Miklikowska et al., 2022
18. Steinberg, 2023
19. Andrews et al., 2020
20. Crosnoe, 2021
21. Shulman et al., 2016; Steinberg, 2023
22. Edelson et al., 2023; Steinberg, et al., 2018
23. Saragosa-Harris, 2022
24. Agostini & Centofanti, 2021; Khor et al., 2021
25. Galland et al., 2020; Galván, 2020
26. Galván, 2020; Short et al., 2020
27. Agostini & Centofanti, 2021
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35. Porras-Segovia et al., 2019
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54. Pollmann et al., 2025b; Testa et al., 2022
55. Kwok et al., 2025; Pollmann et al., 2025a
56. Samson et al., 2024
57. Samson et al., 2024
58. Teicher et al., 2022
59. Abo Hamza et al., 2024; Diaz et al., 2022
60. Grant et al., 2023
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62. Saragosa-Harris et al., 2022
63. Willoughby et al., 2021
64. Icenogle & Cauffman, 2021; Maslowsky et al., 2019
65. Ferschmann et al., 2022; Galván, 2021
66. Blakemore, 2018; Crone & van Duijvenvoorde, 2021
67. Duell & Steinberg, 2021; Galván, 2021
68. Crone & van Duijvenvoorde, 2021
69. Steinber et al., 2018
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72. Johnston et al., 2020
73. Ball et al., 2022
74. Steinfeld & Torregrossa, 2023
75. Steinfeld & Torregrossa, 2023
76. Sawyer et al., 2026
77. Frie et al., 2022
78. Ministry of Health, 2022, cited by Ball et al., 2022)
79. Flemming et al., 2020
80. Lee et al., 2020
81. Pérez-García et al., 2022

82. Brow et al., 2000; Lee et al., 2020
83. Lee et al., 2020
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