

The effectiveness of Dialectical Behaviour Therapy (DBT) in dealing with suicide attempts among teenagers: A case study

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Abstract

Previous meta-analyses of dialectical behaviour therapy (DBT) among teenagers with a history of suicide attempts have not considered the efficacy of DBT for the remission of teenagers with suicide attempts due to depression. To measure the level of suicide attempts and to ascertain the effectiveness of DBT techniques as an intervention. Descriptive analysis included purposive sampling using Inventori Kecenderungan Bunuh Diri (IKBD) to measure the level of suicide attempts. In-depth interviews were utilised to determine the effectiveness of DBT using pre- and post-results. Findings indicated significantly increased levels of DBT effectiveness and decreased levels of suicide attempts based on pre- and post-data. The level of suicide attempts has shown to decrease after four counselling sessions. Interventions using DBT have shown significant improvements in the effectiveness of reducing symptoms of suicide attempts among teenagers suffering from depression. Further research is required to study the factors that lead to suicide attempts among teenagers suffering from depression.

Keywords: Suicide attempt, Depression, Counseling, Dialectical Behaviour Therapy (DBT)

Introduction

Suicides occur everywhere around the globe. Over 700,000 people commit suicide annually (WHO, 2023). There are probably over 20 attempts at suicide for every one that succeeds. A total of 77% of suicides worldwide occur in low- and middle-income nations. Suicide happens to people of all ages. In 2019, it ranked as the fourth most common cause of mortality worldwide for individuals aged 15 to 29 (WHO, 2021). Teenagers are also included in the age range.

Adolescence is a period of profound physical, psychological, and social development. WHO (n.d.) described it as the second decade of life (10–19 years of age). Teenagers go through a developmental stage where they acquire more sophisticated thought and reasoning patterns, try to create their own identities, make new friends and connections, and grow more independent and responsible. The developmental stage included social issues such as poor educational possibilities and less opportunities for fulfilling employment. Teenagers may also have health issues such as early and unplanned pregnancy, sexually transmitted diseases (STDs), violence, anxiety, and depression during this period. Thoughts of suicide may arise as a result of these experiences but not every adolescent with suicide ideas, nevertheless,

makes the attempt (Singh, Siddiqi, Parameshwar, & Chandra-Mouli, 2019). Besides that, the neurodevelopment of the amygdala and prefrontal cortex are implicated in the development of adolescent depression. It is normal for adolescents to seek autonomy and independence. In contrast, withdrawing from fun activities, dropping grades with no apparent cause, isolating from peers, and making statements of self-harm are abnormal. Parents or caregiver should work to differentiate between the signs of depression in teenagers and normal teenage development.

Moreover, in the United States, the suicide rate among teenagers has increased to 6.5 per 100,000 people, with significant racial differences. Although many pre-existing risk factors and post-injury sequelae, such as exposure to violence, substance abuse, suicidal thoughts and behaviours, depression, and posttraumatic stress disorder (PTSD), as well as specific injuries such as spinal cord and traumatic brain injury, have emerged as additional risk factors, the risk factors themselves are complex (Hink, Killings, Bhatt, Ridings, & Andrews, 2022). In Malaysia, The National Health and Morbidity Survey (NHMS) 2017 (IPH, 2017) reported that suicide attempts among school adolescents increased from 6.8% to 6.9% compared to NHMS 2012 (IPH, 2012). Suicide attempts can cause significant negative

impacts on health, social, and economic status.

The current study seeks to examine the effectiveness of dialectical behaviour therapy (DBT) in dealing with suicide attempts among teenagers as previous meta-analyses of DBT among teenagers with a history of suicide attempts have not considered the efficacy of DBT for the remission of teenagers with suicide attempts due to depression. This study aims to measure the level of suicide attempts and to ascertain the effectiveness of DBT techniques as an intervention. One of the comparatively few evidence-based psychotherapies that has been proven to be successful in lowering suicidal thoughts and behaviours is DBT. For instance, community experts have discovered that DBT, as opposed to non-behavioural therapy, reduces the likelihood of suicide attempts by 50% among recurrently suicidal individuals with borderline personality disorder (BPD) (Linehan et al., 2006). A number of significant tenets of the broader DBT model inform the treatment of individuals who are at high risk of suicide.

Literature Review

Depression among teenagers

Emotional disorders are common among adolescents. WHO (2023) has indicated that depression is estimated to occur among 1.1% of adolescents aged 10–14 and 2.8% of 15–19-year-olds. Depression and anxiety share some similar symptoms, including rapid and unexpected changes in mood. Depression can lead to suicide and it is the leading cause of disability and a major contributor to the overall global burden of diseases (WHO, 2023). Besides that, Zhang, Yan, Ye, and Xie's (2023) study on adolescent depression in China showed an increasing trend of depression among teenagers has been observed since 2018, especially in 2021. This depression has led to suicide or suicide attempts and self-harm, reflecting the severity of mental health among adolescents in Huangshi. Those who suffered from these in childhood and/or adolescence were more likely to have agoraphobia, social phobia, oppositional defiant disorder, conduct disorder, and drug dependence, compared to depression with onset in adulthood. In addition, those who suffered depression from an early age were 50% more likely to have attempted suicide (Zhang et al., 2023). Ibrahim et al. (2022)

conducted a study at a school in Kuala Lumpur. They had 461 participating students and 21.5% were found to have depression ($n = 99$). Younger age and Chinese race showed significant association with adolescent depression in that school. The prevalence of depression among adolescents in this study (21.5%) is in line with previous studies in Malaysia (Ibrahim et al., 2022).

DBT for teenagers

Dialectical behaviour therapy for adolescents (DBT-A) is an intervention with a growing evidence base for treating adolescents with emotional and behavioural dysregulation. Gillespie, Joyce, Flynn, and Corcoran (2019) reported on varying lengths of treatment, but the optimal treatment duration has not yet been identified. Goldstein, Axelson, Birmaher, and Brent (2007) supported the effectiveness of DBT for adolescents' mental health conditions. Groves, Backer, van den Bosch, and Miller (2012) presented some empirical evidence for the finding that DBT is a potentially effective treatment for adolescents with aggressive and impulsive behaviours, disordered eating behaviours, suicidal thoughts, comorbid depression, and bipolar disorder. In these trials, adolescents receiving DBT treatment were also admitted to the hospital less frequently. Furthermore, research on these individuals indicates that DBT might be modified for use in residential, community, inpatient, and outpatient therapy contexts (Groves et al., 2012).

Significant reductions on all outcome measures were observed for DBT-A participants including presence and frequency of self-harm, suicidal ideation, and depression. Reductions in the number of acute inpatient admissions, bed days, and emergency department visits were also reported (Flynn et al., 2019). Torbati, Imeni, and Abbaspour (2022) stated that DBT can reduce anxiety and depression in patients with COVID-19 disease. It is suggested that this intervention can be used in psychological treatment programmes.

The effectiveness of DBT for suicide attempts among teenagers

McCauley et al.'s (2018) study supported that DBT is effective for reducing repeat suicide attempts among highly suicidal adolescents, underscoring the value of

DBT in suicide prevention initiatives. Their study has multisite randomised clinical trials of 173 adolescents, which indicated a significant advantage for DBT compared with individual and group supportive therapy for reducing repeat suicide attempts, nonsuicidal self-injury, and total self-harm after treatment (McCauley et al., 2018).

A few studies also show significant reductions in suicide attempts among teenagers. Kothgassner et al.'s (2021) study comprised 1673 adolescents. Compared to control groups, DBT-A showed small to moderate effects for reducing self-harm. DBT-A appears to be a valuable treatment in reducing both adolescent self-harm and suicidal ideation (Kothgassner et al., 2021; Jam et al., 2014). Stanley, Brodsky, Nelson, and Dulit (2007) noted that reductions were found in non-suicidal self-injurious (NSSI) behaviour, suicide ideation, subjective distress, depression, and hopelessness between baseline and six months. These results support the use of brief dialectical behaviour therapy (DBT-B) in a six-month format when NSSI as well as suicidal behaviour and ideation are the targeted behaviours. Target behaviours were reduced significantly and retention was extremely high in comparison to other interventions for this population (Stanley et al., 2007).

Past studies have examined the effectiveness of DBT for adolescents. Asarnow et al. (2021) reported that only suicidality or self-harm variables had a significant DBT effect at follow-up and mediation analyses predicted self-harm remission during the 6- to 12-month follow-up. Linehan et al.'s (2015) study also showed that DBT is a salutary, profitable, and pre-eminent approach which can be used with suicidal and NSSI patients compared to usual care. A variety of DBT interventions with therapists trained in the DBT suicide risk assessment and management protocol are effective for reducing suicide attempts and NSSI episodes. Interventions that include DBT skills training are more effective than DBT without skills training and standard DBT may be superior in some areas (Linehan et al., 2015). Fitzpatrick, Bailey, and Rizvi (2020) agreed that DBT effectively reduces several facets of suicidal ideation. Structured psychotherapies such as DBT have reduced suicide attempts in people accepting treatment after recent self-harm or hospitalisation (Simon et al., 2022). Over a one-year period, DBT dramatically surpassed sense

of coherence (SOC) psychotherapy in reducing suicide attempts (Goldstein et al., 2024).

In addition, Mehlum et al. (2014) conducted a study on adolescents with repeated suicidal and self-harming behaviour and noted that when it came to lowering the frequency of self-harm, DBT-A continued to outperform enhanced usual care (EUC). Intergroup differences that were evident at the 19-week assessment were no longer observed for other outcomes, such as suicidal ideation, hopelessness, depressive or borderline symptoms, and the global level of functioning. This was primarily because participants in the EUC group significantly improved on these dimensions over the follow-up year, while DBT-A participants remained unchanged (Mehlum et al., 2014). Pasiieczny and Connor (2011) evaluated DBT within a public mental health system in Australia and found that when compared to treatment-as-usual (TAU) care, DBT significantly reduced suicidal and NSSI, ER visits, psychiatric admissions, and inpatient bed days. Their study further demonstrated the effectiveness of DBT. DBT has specific utility in addressing suicide attempts in borderline personality without being generally effective in the overall personality management (Reddy & Vijay, 2017). DBT showed modest benefits in reducing suicidal ideation compared with TAU or wait-list control, and cognitive behavioural therapy (CBT) also reduced suicide attempts compared with TAU (D'Anci, Uhl, Giradi, & Martin, 2019). DBT has consistent evidence exclusively for reduction in frequency of suicide reattempts and also has evidence in those with eating disorders and substance use disorders (Reddy & Vijay, 2017).

Despite growing research on the effectiveness of DBT, there are some limitations of DBT on training. Few published implementation studies on DBT have looked at training models (Carmel, Rose, & Fruzzetti, 2014). According to Swales, Taylor, and Hibbs (2012), the survival curve demonstrated that DBT programmes ran an increased risk of failure in the second and fifth years after training. Absence of organisational support and staff turnover were the most commonly reported implementation challenges (Swales et al., 2012). Data indicate that community-based physicians can be trained in DBT even though there are no published controlled training evaluations of the technique (American Psychiatric Association, 1998; DuBose, Ivanoff, Miga, Dimeff, &

Linehan, 2013; Hawkins & Sinha, 1998; Landes & Linehan, 2012). Further research is required to investigate DBT implementation techniques, such as determining effective training models, creating drift prevention strategies, and involving clinicians in evaluating the benefits and drawbacks of implementation initiatives in various clinical contexts. Like other evidence-based interventions, DBT adoption requires organisational support that includes a plan for ongoing staff development and training. There are very few restrictions on DBT treatment, which can occasionally be enhanced, and DBT is increasingly commonly used and beneficial. Thus, the current study seeks to emphasise the effectiveness of DBT to provide exposure to the society about the merits and benefits of this treatment.

Methodology

Deeper understanding and exploration of real-world issues are provided by qualitative research. Additionally, participant experiences, perceptions, and behaviour are gathered using this method. Rather than addressing how many or how much, it addresses the hows and whys. It may be designed as a stand-alone study using only qualitative data, or it may be a component of a mixed-methods study using both qualitative and quantitative data. For this reason, the researchers used a qualitative method in this study in order to gain a deeper understanding of the efficacy of DBT treatment from an emic standpoint. One of the most popular methods in qualitative social science research is the case study. Its use has grown significantly over time and is currently utilised in a number of social science fields, including sociology, management, anthropology, and psychology (Priya, 2021; Jam et al., 2013).

A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. It is an established research design. A case study is an empirical investigation that looks at a phenomenon in its actual setting (Yin, 2009; Karamdsani et al., 2025). Several data gathering techniques are employed in case study research because it entails a thorough examination of a phenomenon. It should be emphasised that, as Yin (2009) pointed out, a case study is a research approach or design to examine a social unit rather than a technique for gathering data.

Creswell (2014) provided a clear and thorough explanation of case study methodology. Case studies are good for describing, comparing, evaluating, and understanding different aspects of a research problem.

Stake (1995) made the following distinctions among several case study categories. In order to comprehend a certain instance, an intrinsic case study is conducted.

An instrumental case study is carried out when someone has a research question and wishes to gain understanding of the question by examining a specific instance. An instrumental study that is expanded to include multiple examples is referred to as a collective case study. Yin (1994) recommended three distinct case study categories. The three categories are explanatory, descriptive, and exploratory, depending on the kind of study topic. He clarified that exploratory research might be necessary if the enquiry is primarily concerned with "what" inquiries. An explanatory case study deals with "how" or "why" inquiries. In descriptive research, the background details and an accurate depiction of the case under consideration are included.

Purposive sampling technique was employed in this study along with descriptive analysis and participants were chosen based on the characteristics that the sample needed to have. The study's participant was an 18-year-old girl. She answered the Inventori Kecenderungan Bunuh Diri (IKBD) to measure the level of suicide attempts. This inventory was constructed from suicidal tendency theory adapted by Pan and Mohamed Arip (2018) from various theories of self-murder and human psychology. Based on this theory, suicidal tendencies refer to attempted suicide with the intention of dying including thinking of suicide and near-fatal suicide attempts. Suicide attempt is categorised as self-initiative, potentially causing personal injury and is purposeful to die. IKBD has 24 questions that must be answered by respondents and only yes or no answers are accepted as correct answers.

The answer yes is given a value of 1 while the answer no is given a blank value. Six in-depth interviews were conducted to determine the effectiveness of DBT using pre- and post-results. These semi-structured interviews were conducted by a

registered counsellor and lasted between 60 and 90 minutes, depending on the information provided by the study participant.

Data collection and analysis

Typically, case study research uses a variety of data collection methods and sources for its data. Techniques for gathering data include participant and direct observations, questionnaires, and pertinent documents (Yin, 2014). To answer the basic hypotheses of a study, data analysis involves looking over, classifying, tabulating, or recombining the evidence in some other way. One of the less developed parts of the case study approach is the analysis of the case study. To present the facts in several ways by utilising multiple interpretations, the researcher must draw on experience and the literature (Tellis, 1997). The process of finding and analysing patterns or themes in a data set is known as thematic analysis, and it frequently yields fresh perspectives and understanding (Boyatzis, 1998; Elliott, 2018; Thomas, 2006). It is imperative that researchers refrain from allowing their personal biases to impede the identification of significant themes (Morse & Mitcham, 2002; Patton, 2015). The data in this study were analysed using the thematic analysis approach. Researchers opt for thematic analysis due to its adaptability in understanding the data and its ability to facilitate the handling of big data sets by categorising them into broad topics. While there are several ways to do a thematic analysis, the most popular method consists of the following six steps: (a) familiarisation, (b) generating codes, (c) constructing themes, (d) reviewing themes, (e) defining themes and (f) reporting of findings (Clarke & Braun, 2013).

Diverse interpretations and meanings can be incorporated into data analysis through the use of numerous data collection methodologies and sources, hence enhancing the credibility of the results. This is called triangulation (Flick, 2014). In general terms, triangulation operates as a means of verification through the convergence of sources, interpretations, or even perceptions; this helps to ensure a version of the truth (Guenzi & Storbacka, 2015; Järvensivu & Törnroos, 2010), confirm the validity of the study (Hammersley, 2008), or confirm the repeatability of an observation or interpretation (Stake, 2004).

Findings

Inventori Kecenderungan Bunuh Diri (IKBD) was employed to measure the level of suicide attempts of the client. The result for IKBD pre-test is 25 and for the post-test is 11. This shows the decline in the post-result after the session. There was a total of six pre- and post-session treatments with the client. Four techniques of DBT were applied during the treatment sessions. These were mindfulness, emotion regulation, distress tolerant, and interpersonal effectiveness. In every session, a different technique was used to see its effectiveness. The technique helps to identify, then change negative behaviours that cause the pain, discomfort, or inability to function in relationships and daily life of the client. Based on the data collected, four themes were identified. Findings indicated significantly increased levels of DBT effectiveness and decreased levels of suicide attempts based on pre- and post-data. The level of suicide attempts has shown to decrease after six counselling sessions. The four themes identified are (a) emotional validation, (b) self-worth, (c) recognised disappointment, (d) acknowledge the sadness. The feedback from the client during the interview and sessions were quoted to validate the findings from the themes. To answer the research question, the client's statements were reported in the data. Consequently, the study's excerpts were interpreted to show how well the DBT approaches worked in sessions and how the client's attempts to commit suicide decreased. Prominent statement that addressed the topic and research question served as an illustration, providing a comprehensive and intricate account of the client that experienced the sessions of DBT techniques.

Emotional validation

The client felt her emotions were appreciated and validated because in the DBT treatment sessions, the counsellor taught her skills to help manage her emotions instead of being managed by them, reduce vulnerability to negative emotions, and build positive emotional experiences. Emotions can often be quite powerful and labile, meaning they alter frequently, for persons who suffer from emotion dysregulation. Behaviour is driven by emotions. The behaviour of emotionally dysregulated people frequently centres on figuring out how to make their feelings feel better or to stop feeling discomfort. This may result in

behaviours that get worse. As a result, a key component of DBT is learning how to control emotions. This does not imply that the feelings are unjustified or inconsequential, and humans are not attempting to completely suppress them. They are natural, significant, and legitimate. However, emotions need to be controlled since they may be quite painful and frequently leave us feeling powerless. Acknowledging these feelings, giving them credibility, and embracing them as genuine and significant are all components of management, and these were what the client did in the sessions.

Banyak bezanya puan diri saya setelah aktiviti minggu lepas. Antaranya saya dah boleh kawal perasaan marah saya. (TA3, GA; lines 66-67)

Kalau sebelum ni saya selalu nak cederakan diri dan nak bunuh diri. Sekarang, saya dah boleh kawal perasaan yang tak elok itu. (TA3, GA; lines 115-117)

Self-worth

The client had undergone six sessions with the counsellor and by incorporating the core DBT skills of emotional regulation, distress tolerance, interpersonal effectiveness, and mindfulness into her daily lives, she can cultivate a more positive self-image and foster a greater sense of self-worth. The DBT skills can support the client in managing unpleasant emotions, identifying and labelling her feelings, confronting bad ideas, expressing her needs, developing empathy, and staying grounded and present in trying circumstances. The client can strengthen her sense of self-worth and take steps towards living a more contented and self-assured life by accepting and putting these abilities into practice. It is vital to keep in mind that developing self-esteem is an ongoing process that calls for perseverance, patience, and practice. However, she can create a personalised toolbox to assist her journey towards higher self-esteem by combining DBT techniques and customising them to meet their unique requirements. These abilities have the potential to be important tools for developing resilience, personal development, and a more solid and long-lasting sense of self-worth with practice and dedication.

Yang paling ketara apa yang saya rasa selepas ikuti modul adalah saya dah boleh menghargai diri dan perasaan saya sendiri. Sebelum ni saya tak macam ni.

(TA6, GI; lines 57-58).

Recognised disappointment

The client is able to recognise the reality of disappointment without approving the experience.

Even though something is challenging, she does not have to accept it or allow it to go on. When she accepts the truth instead of rejecting it, she can break free from the cycle of suffering, resentment, anger, humiliation, guilt, and other unpleasant emotions.

Getting through tough situations is not easy. She experiences a sense of being trapped as a result of her decision to either do nothing about her pain and suffering or, alternatively, opt to utilise unhealthy coping mechanisms to deal with her distress. When she is able to accept reality while remaining neutral against it, change can happen.

Dua minggu lepas masa saya call puan, masa tu saya dah hampir minum minyak tanah puan tapi bila saya buat deep breathing saya berasa tenang sedikit. (TA2, GI; lines 80-82)

Tapi saya cepat-cepat buat mindfulness tu dan ambil pen terus lukis untuk lepaskan marah dan geram saya. Tak lama lepas tu, saya berasa lega sangat puan, saya rasa cool sikit walaupun ada rasa nak marah lagi. (TA5, GI; lines 44-47)

Acknowledge the sadness

The client is capable of acknowledging her sadness. For example, in DBT treatment, if a client was experiencing sadness, the counsellor may use mindfulness practices to help the client notice her feelings, sit with her, and remind her that it is acceptable to feel that way. The client needs to bear in mind that feelings are simply feelings; they are neither good nor evil. The client learns from these DBT skills what to focus on, which may include the present, her awareness of it, emotions, thoughts, and sensations; how to distinguish between emotions and sensations from thoughts; and how to be more mindful by learning to balance rational thoughts with emotions, using radical acceptance to learn to tolerate aspects of herself (as long as they do not hurt her or others); taking regular, effective action using mindfulness skills; and overcoming obstacles through mindfulness, such as restlessness, doubt, and

sleepiness.

Saya rasa saya dah kurang perasaan ingin bunuh diri apabila saya amalkan aktiviti mindful with yourself tu. Yang tu antara aktiviti yang saya suka puan. (TA4, GI; lines 102-103)

Saya berasa lega juga buat lukisan ni. Rasa macam saya boleh bercakap dengan kertas. (TA2, GI; lines 140-141)

Discussion

The teenager with depression who received DBT therapies in this study had a significant improvement in the reduction of symptoms associated with suicidal thoughts. This is comparable to Asarnow et al.'s (2021) study, which found that DBT is effective in lowering suicidal thoughts and acts of self-harm among extremely suicidal teenagers with self-harm behaviour. The results of McCauley et al.'s (2018) study validated DBT as the first well-established, empirically supported treatment for reducing recurrent suicide attempts and self-harm in young people based on the standards of two independent trials that demonstrate efficacy.

The client was capable of validating her emotions after the DBT intervention. This is similar to a study of emotional validation where the results showed that the intervention and control groups had statistically significant differences in terms of emotional processing ($p < 0.01$) and impulsivity ($p < 0.05$) after the intervention of DBT (Shamsnajafi, Hasanzadeh, & Emadian, 2023).

In terms of self-worth or self-esteem, the client was able to enhance her self-worth after using the DBT techniques. Similarly, Soleimani, Ghasemzadeh, and Ebrahimnezhad (2012) used DBT in teaching adaptive emotion regulation and creating emotional control. DBT was found to help patients with hyperphagia and anorexia nervosa by increasing their sense of self-worth. According to Safer, Lively, Telch, and Agras (2002), people who have low self-esteem, a bad opinion of their appearance, and a negative self-evaluation are more prone to start overeating again.

Subsequently, the counsellor in this study was able to help the client in making her recognise her

disappointment related to her life. This is parallel to Linehan et al.'s (2015) study wherein the therapists trained in the DBT suicide risk assessment and management protocol can help to effectively reduce the number of suicide attempts and NSSI episodes by utilising a range of DBT therapies to recognise disappointment. Standard DBT may be better in some situations. However, interventions involving DBT skills training are more successful than DBT without skills training (Linehan et al., 2015).

The client was able to successfully acknowledge her sadness, which is related to emotion management. This is because failing to acknowledge one's feelings can lead to alienation, disconnection, confusion about one's emotions, or even rage. Similarly, Geddes, Dziurawiec, and Lee (2013) observed that after completing the DBT programme, teenagers reported a reduction in trauma-related symptoms, suicidality, and NSSI. This reduction was still present at the three-month follow-up. The teenagers also reported better emotion control right after therapy, and this continued, if somewhat more subtly, after three months. Considering the increasing need for mental health services, it is noteworthy that after receiving DBT, five out of the six teenagers were released from the programme (Geddes et al., 2013). Therefore, this shows the effectiveness of DBT techniques and skills in handling teenagers with suicide attempts and self-harm tendencies.

Conclusion

There are various challenges in treating teenage suicides. However, the teenagers' immediate social circle should play a critical part in helping to deal with teenage suicide attempts. Teenagers are not the only ones learning in DBT. Even if the teenagers may seem unreasonable, parents should train to validate their feelings. The current study contributed to the literature and treatment of the effectiveness of DBT for teenage suicide attempts. The techniques have helped the client in handling her behaviours and thoughts. The factors that contribute to suicide attempts among depressed teenagers need to be investigated further.

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