The Silent Struggle: A Comprehensive Examination of Adolescent Mental Health Challenges

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Edward and Cynthia Institute of Public Health

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Introduction

Adolescence is the transitional period of life between childhood and adulthood, from ages 10 to 19. This stage of life calls for particular requirements in terms of development and health like appropriate nutrition, education, proper guidance, etc. (National Health Mission, n.d.) Adolescence is a crucial stage of life when young people evidently become self-sufficient, develop new relationships, learn social skills, and acquire some behaviors that they will carry into adulthood. Adolescents typically go through periods of rapid physical and psychological development, influencing their emotions, decision making ability , interaction with the surrounding , etc. (WHO, n.d.-a).The World Health Organization (WHO) reports that there are more young people worldwide than ever before. Of the 7.2 billion people , > 3 billion are younger than 25 years old, accounting for 42% of the global population(WHO, n.d.-b). India is home to the largest population of adolescents in the world, with around 253 million adolescents aged 10-19 years (National Health Mission, n.d.; UNICEF, n.d.).

Transitioning to adulthood, comes with a lot of challenges, dilemma and changes on the aspects of biological, emotional, psychological, social. They get exposed to a lot of information from various sources (like on sexual and reproductive health), harmful substances, potential risk of violence and injuries. A majority of them get trapped in the cycle of risky behavior owing to plethora of reasons that ultimately results in poor mental health outcomes. During these phases of life particularly, they need non-judgmental support, reliable information and safe space to communicate their concerns. Unfortunately, the holistic idea of adolescent health remains neglected.

It has been reported that 1 in 7 adolescents (10-19 years old) from mental disorders. This has been attributed to about 13 % of the global burden of diseases among adolescents (UNICEF, 2021a; WHO, 2021a). The regions with the greatest rates of adolescent mental illness were South Asia, East Asia and the Pacific. The Middle East and North Africa, North America and Western Europe regions had the highest prevalence rates. The WHO regional distribution indicates that suicide ranks as the leading cause of death in Eastern Europe and Central Asia, among adolescents aged 15-19 years of age; in North America, Western Europe and South Asia, as the second most prevalent cause and in Latin America and the Caribbean, it is the third most common cause of death (UNICEF, 2021b).

Table.1. Age and sex-wise distribution of suicides among adolescents, 2019

Estimates of suicide as a cause of death, globally, by age and sex, 2019			
Age group	**Total Number**	**%**	
		Boys	**Girls**
Adolescents (10-19 years)	**45800**	**57**	**43**
Adolescents (10-14 years)	**10200**	**61**	**39**
Adolescents (15-19)	**35600**	**56**	**44**

Source : (UNICEF, 2021b)

The table indicates that adolescent boys have higher prevalence of suicides and older adolescents, aged 15-19 years old are more prone to the suicides.

PREVALENCE (%) OF MENTAL DISORDERS AMONG ADOLESCENTS, 2019

- Other mental disorder 9%
- Idiopathic developmental intellectual disability 14%
- Attention deficit hyperactivity disorder 18%
- Conduct disorder 19%
- Anxiety and depressive disorders 40%
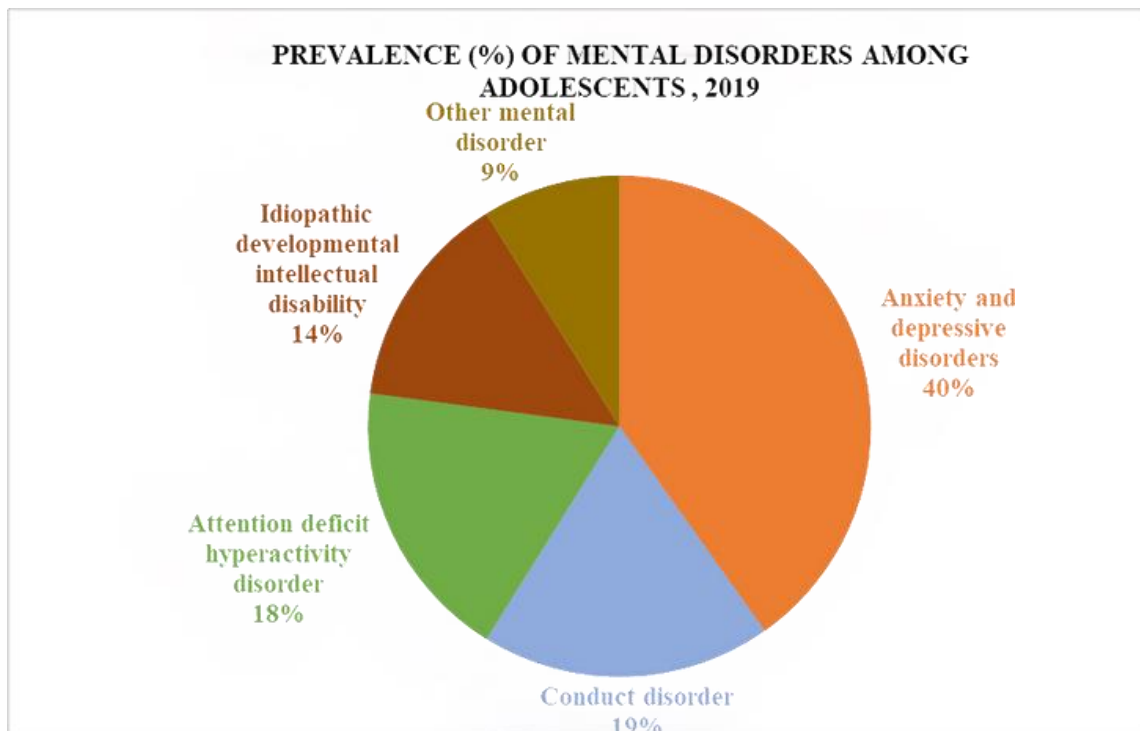
Fig.1. Distribution of mental disorders among adolescents, 2019

Anxiety and depressive disorders account for around 40% of mental problems in adolescents aged 10-19, followed by conduct disorders (20.1%) Attention-deficit hyperactivity disorder (19.5%). Moreover, the estimates have shown that among the adolescents in the age group of 15-19 years, suicide is the fourth leading cause of death and furthermore , it is the third leading cause of death among girls in the same age group (UNICEF, 2021a). Around 7.3 % of the adolescents are living with mental morbidity. Around 5.4% of the disease burden is attributed to the common mental disorders, while 4.2% is contributed by neurotic and stress related disorders (NMHS, 2016).

Mental health in general, and especially in adolescents, has long been overlooked in the health dimension. On one side, adolescent mental health has not received much attention, which may be attributed to their age group and the behaviours children develop during this phase, considering it a normal process. On the other side, adolescents with mental health issues are criticised, stigmatised, ostracised, and held responsible for their own circumstances. Whatever the situation may be, as a society, we are failing to address the concerns of adolescents, assuming it to be normal. However, centralising the idea of adolescent mental health as an important public health and social issue and breaking the silence around it should be considered normal in order to improve the quality of life of these adolescents.

Factors determining the mental health of adolescents

The social context of adolescent mental health

Adolescence is a delicate developmental stage during which a person's identity is established and the foundation for their future mental health is laid. However, because of the physical, emotional, intellectual, and social changes throughout this time, there is a higher likelihood of mental health problems. Young people are susceptible to behavioural and mental health problems. The societal attitudes and belief play a critical role in shaping various aspects of adolescent development. Social factors like peer relationships, family dynamics, the school environment, and societal expectations have a significant impact on the mental health of adolescents. During this critical developmental period, social support, understanding from peers and family, and a supportive school environment all contribute to mental health. On the other hand, academic pressures, social stigma, and bullying can have a negative impact on the mental health of teenagers. When addressing and supporting teens' mental health, these social contexts must be taken into account including peer relationships, family dynamics, the school environment, societal expectations, technology and social media, economic factors, cultural influences, and other traumatic experiences. Understanding and addressing these social factors is crucial for promoting positive mental health outcomes in adolescents. A study was conducted with 452 students aged < 15 years old selected by a purposive sampling technique to determine the relationship between the protective factors of self-esteem, family relationships, and social support and adolescent mental health. The study showed a significant correlation between the protective factors (self-esteem, family relationship, and social support) and adolescent mental health, that means there is a strong effect of social factors in the mental health of an adolescent. (Triana et al., 2019).

Socioeconomic status

A person's childhood health and socioeconomic status (SES) are important predictors of their later health. The term "SES" refers to a person's or family's relative social position, which affects their ability to access resources related to money, social, cultural, and human capital. It is commonly determined by looking at variables such as education, occupation, and income. However, there is also a converse pathway, or the impact of socioeconomic environments on health (social causation). Therefore, disparities in the health of children and their economic status are important social and health concerns that require appropriate policies (Aggarwal et al., 2005).

A person's access to additional investment opportunities, including schooling, is further limited by unfavourable socioeconomic conditions. Therefore, for children with poor health and low socioeconomic status, these conditions are likely to continue or get worse even after they grow up. Growing social polarisation has been linked to an increase in mental health issues among young people. Income inequality was found to be associated with higher self-rated symptoms of mental and physical health as well as school bullying. According to an analysis of adolescent health in 34 mostly high-income countries, adolescents whose parents had limited education and were unemployed were almost twice as likely to suffer from severe depression. (Hartas, 2021).

Family Context

Adolescence is the transitional phase of growth and development between childhood and adulthood (WHO). It is a stage when a child will experience rapid growth physically, psychologically, emotionally and cognitively.

They are really sensitive at this point. Families, schools, communities, classmates, and even culture all have an impact on a child's overall growth and development, as do the environment in which they are raised. The adolescent's mental health is influenced by a multitude of elements, but family ties are particularly important since they offer emotional support, a sense of belonging, and a stable environment. Adolescents' general emotional development, coping mechanisms, and sense of self-worth can all be impacted by family engagement.

It is said that a child's mental health is supported by their parents, so a close relationship and communication between a parent and children help them to be more expressive about their feelings, and face challenges in any circumstances. Additionally, they are more responsible and decisive towards their decision making, reducing risky behaviours that can impact mental health (Morris et al., 2007).From the study conducted in Netherland 2014 mention that children with mental illness are often found to be at high risk of developing psychological problems themselves. They conduct a study focused on parent-child interaction and family environment. This cross-sectional study includes 124 families with mentally ill parents and 127 families without mentally ill parents, and having children aged 11- 16 years old. The findings indicate that as compared to parents who are not mentally ill, the interactions between mentally ill parents and their children are less positive. The adolescents are more likely to engage in deviant conduct in the family setting because of the absence of parental support and supervision. (Van Loon et al., 2014).

Positive parents and child relationship or family relationship can contribute to resilience, while dysfunctional or parent's marital issues may increase the risk of mental health issues. Family conflicts, parents' divorce, lack of support, or negative experiences may raise stress levels and contribute to mental health issues in adolescents. Building a supportive family environment, good communication, understanding and friendly atmosphere at home are essential for fostering mental well-being in adolescents during this crucial stage of development.
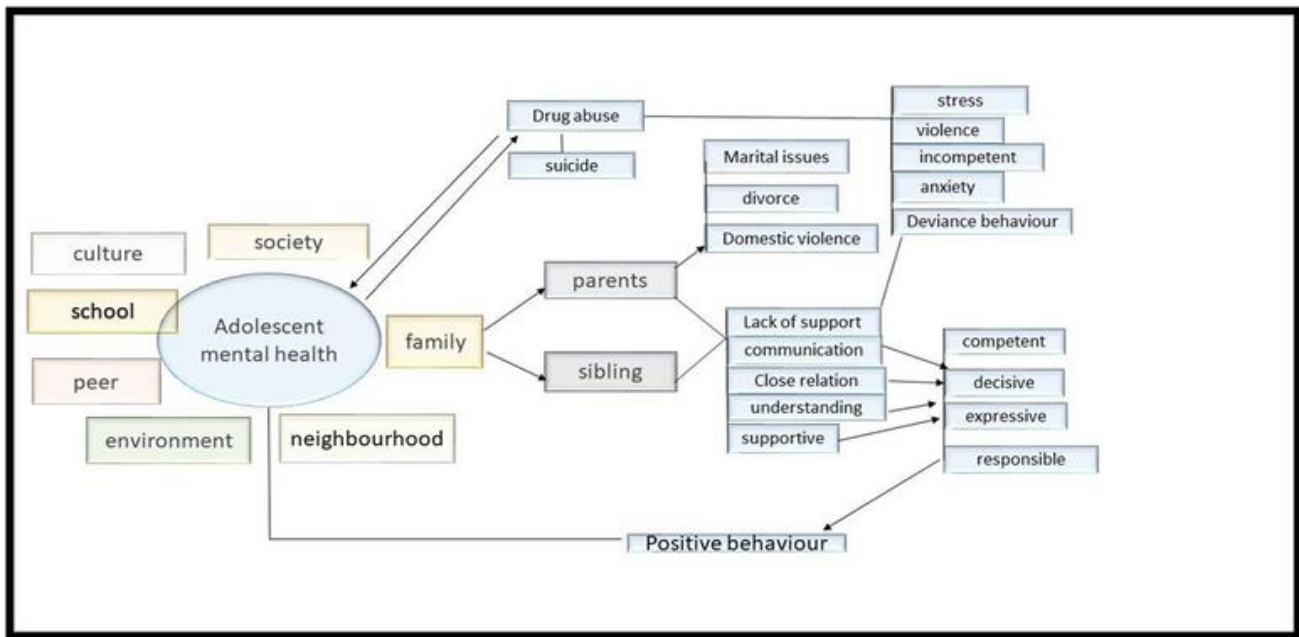
Fig.2. Family factors and adolescent mental Health

Adolescent mental health is affected by the surrounding environment where they lived like society, family, school, neighbourhood, culture etc. Of all factors family plays the crucial role, positive reaction from family like good communication, close relation, understanding, supportive attitude can make their child more expressive, competent, and responsible which is a sign of positive behaviour while on the other hand lack of support, marital issues of parents and divorce can affect the child cognitive and social development like stress, depression, introvert and lead them to many deviance behaviour which impact their mental health problem vis can also lead them into drugs and suicide.

Parent-Child Interaction

The interaction between parent and children and/ or adolescents plays an instrumental role in providing the quality life to the child. An unfavourable interaction may raise the concerns of mental health illness among the children and adolescents, which is in agreement with the prospective study conducted in Netherlands, with the Rotterdam Youth Monitor data from students at secondary schools. This study also revealed that an unfavourable parent -adolescent attachment along with the life events together have strong negative impact on the adolescent's mental health (Bannink et al., 2013).
Another population – based study conducted with 4756 students in Minnesota suggested that the adolescents' health indicators of behavioral and emotional health were associated with the parent opinions for serious decisions, feeling able to talk to parents about problems, and perceiving parental caring.

For instance, compared to their peers who reported feeling that their mother cared quite a bit or very much, youths who reported feeling as though their mother cared very little or not at all about them reported particularly high prevalence rates of more than 60 % in girls and >25 % in boys for unhealthy weight control behaviors , suicide attempts (33.5% girls, 21.3% boys)or ; above 45 % in girls and >20% in boys flow self-esteem (47.15% girls, 24.56% boys); and for depression , the prevalence is > 60 % in girls and >30 % in boys depression (Ackard et al., 2006).

Culture

Culture has its influence on all aspects of health including mental health of adolescents. Culture influences attitudes, helps seeking patterns, preferred type of support.The way that people express their problems or withhold significant information about the symptoms they define is influenced by cultural norms. Every cultural group has its own customs, traditions, and beliefs around mental health, which have an impact on how individuals react to challenges and make decisions. Culture may be a source of both strength and weakness. Culture may also have an effect on how we perceive and manage mental health issues. Perspectives on mental health vary throughout cultures; in some, it is socially acceptable to express emotions, while in others, mental health is stigmatised. Stigma further negatively affects the adolescent's mental health seeking behaviour and may also leads to lower self-esteem, feeling of shame, social rejection etc. Furthermore, stigmatisation might exacerbate the illness when coupled with other stresses. Mental health issues are viewed as a sign of weakness in many cultures, which also normalise them and disregard them as legitimate health issues. Adolescents from such cultural groups find it more difficult to converse about their issues as a result. They are unable to get expert aid because of cultural taboo. According to a cross- sectional study, conducted in Delhi, India with urban and rural communities, along with medical professionals directed towards a lot of myths that still exist within Indian community, pertaining to mental health. It showed that around 23.6% of respondents thought that a person's propensity for mental illness is increased if they have decreased sexual desire. More than 30 % of the rural participants, about 8 % of urban subjects and 1.3 % of professionals believed that loss of vaginal secretion or semen was the cause of mental disorder. Additionally, a significantly higher proportion (39.4%) of rural respondents thought that mental illness was God's way of punishing patients for their prior transgressions. Fasting and daily worship might lessen the negative consequences. Around 39.4% of people in rural regions, 34.4% of individuals in urban areas, and 4% of professionals thought that ghosts, the devil, or witches had negative impacts. (Kishore et al., 2011). They also contend that tantriks and ojha may drive out ghosts and that prayer, pooja, and hawan can lessen the negative consequences. A small percentage of professionals contribute to stigmas, misconceptions, and negative beliefs about mental illness. Nevertheless, these percentages are alarming because the presence of these beliefs among those in charge of providing mental healthcare services will undoubtedly affect the standard of care. These kinds of beliefs are prevalent for all age groups and may influence teenagers' and their families' actions while seeking assistance.

A complex interplay of biological, psychological, social, and cultural elements is thought to give rise to mental disease. Depending on the condition, any of these three components may have a greater or lesser function. Depression and post-traumatic stress disorder (PTSD) are mostly caused by cultural and societal variables. A mental illness known as post-traumatic stress disorder (PTSD) is brought on by exposure to intense trauma, such as torture, war, genocide, or the grave danger of death or major harm (General (US) et al., 2001).

It is critical to understand culture as it shapes people's perceptions of health and illness as well as the contextual strategies they use to cope with their medical conditions. Research has indicated that, in comparison to environmental causes, public stigma in India was significantly influenced by evil spirits and God's punishment (Gaiha et al., 2020). Cultural elements, including beliefs about emotional control and attitudes towards it, might have an impact on help-seeking behaviours. Different cultural groups appreciate emotional self-control to varying degrees, despite the fact that most of them use it. Adolescents' decisions to seek professional therapy for mental health concerns may be significantly influenced by cultural norms and family obligations. These factors also emphasise a dynamic interaction between cultural factors and the mental health of adolescents.
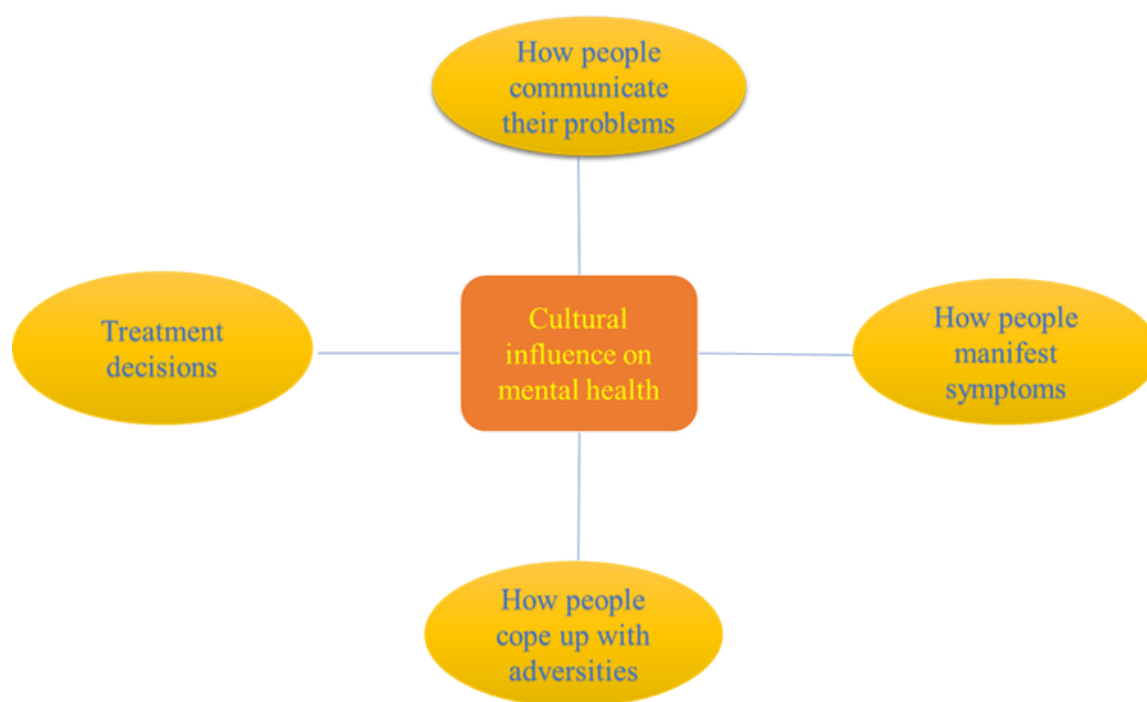

Fig.3.Cultural influence on mental health

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Several cultural -bound syndromes are prevalent in the Hispanic community like they hold onto the concepts of susto (fear) and mal de ojo (evil eye) (General (US) et al., 2001). Possession syndrome, Dhat syndrome, Koro, Bhanmati, Gilhari syndrome, compulsive spitting, Suchibai syndrome, culturebound suicide (sati, santhra), Jhinjhinia, ascetic syndrome, etc. are prominent culture-bound syndromes in India(Kapoor et al., 2018). These are not only culture bound syndrome, but are social disorders. The mental health of the children and adolescents growing in such environment can be severely impacted, thereby, negatively influencing their Quality of Life. Gaining insight into these culturally specific illnesses is beneficial in recognising the need of mental health education, prevention, and treatment.

Children engage in customary behaviours within their cultural surroundings and learn and acquire culturally appropriate actions from observing their parents and other members of their community. According to research conducted using a diverse sample of children and their parents from 12 cultural groups in nine countries it was found that culture play important role in developing psychopathology. Externalising behaviour or uncontrolled behaviours such as lying, aggression, cheating, stealing, substance abuse are at heightened risk during adolescence compared to earlier or later in development. Researchers has investigated how different cultural context influences such behaviours in adolescents. Parents in different cultural groups as found to vary in numerous ways regarding values related to childrearing and their attitudes and attributions that might be related to children's externalising behaviour.(Lansford et al., 2018).In a research conducted to examine whether the cultural normativeness of parents' beliefs and behaviours moderates the links between those beliefs and behaviours and adolescents adjustment, mothers, fathers, and children (N = 1,298 families) from 12 cultural groups in 9 countries (China, Colombia, Italy, Jordan, Kenya, Philippines, Sweden, Thailand, and the United States) were interviewed and it was found that cultural context can affect parenting and influence character and behaviour of adolescents and children.(Je et al., 2018).

Marginalisation means having little interest to interact with other cultural groups as a result of being discriminated against or being excluded. Ultimately, these individuals are at risk for poor self-esteem, depression, self-harm, and physical illness. By understanding issues of compounded intersectionality and marginalisation awareness should be increased among these groups about wide variety of factors and experiences that may play a role in symptom generation, maintenance, and treatment outcome. (Yearwood & Meadows-Oliver, 2021).
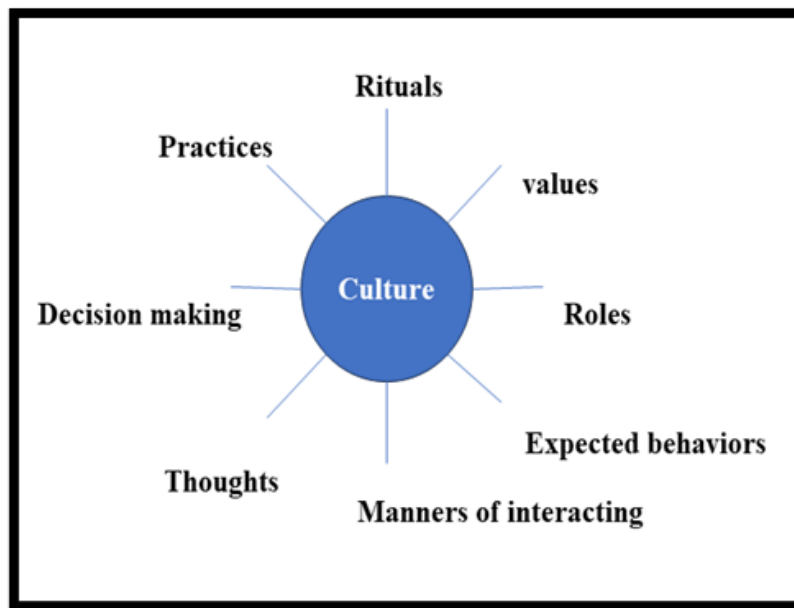
Fig.4.Factors influenced by cultural context (Cultural and Linguistic Competence in Patient Care, n.d.)

Social Media

Social media is an online forum where users may communicate by exchanging images, comments, and responses to content. In today's era, where people are networking at a global level on different social media apps, adolescents too have easy accessibility and are no longer shielded from its effects; instead, the majority of their lives are spent on these apps. This has increased during the COVID-19 Pandemic.According to the findings of the research conducted in March 2020 in Israel, suggests that the excessive dependence on digital media during the pandemic might have negatively impacted the adolescent's emotion, behaviours, academic performance, and parents' child relationship. (Shutzman & Gershy, 2023).

Five main themes were identified that have a great impact on adolescents' mental health: 1) Self-expression and validation: seeking validation through self-expression on social media and relying on likes and comments for validation can contribute to fluctuation in self-esteem, creating a vulnerable emotional state for adolescents. 2) Appearance comparison and body ideals: Constant exposure to idealised images may lead to unrealistic standards, fostering feelings of inadequacy and negatively impacting mental well-being. 3) Pressure to stay connected: The fear of missing out (FOMO) and the need to respond promptly to messages can lead to disrupted sleep, increased stress levels, and a sense of social obligation, negatively impacting mental health 4) Social engagement and peer support: Social engagement on social media is the potential for cyberbullying. Harmful interactions or negative comments from peers online can lead to emotional distress, and anxiety, and adversely affect the mental health of adolescents. 5) Exposure to bullying and harmful content: Constant exposure to negative interactions or content may lead to feelings of insecurity, fear, and social isolation, negatively impacting their overall mental well-being (Popat & Tarrant, 2023).Excessive social media use increases anxiety, depression, sleep disruption, physical health issues, emotional distress, suicidal thoughts, low self-esteem, lack of control, social pressure, injustice, emotional detachment, disconnection anxiety, social exclusion, threats to belonging, loneliness, and isolation.

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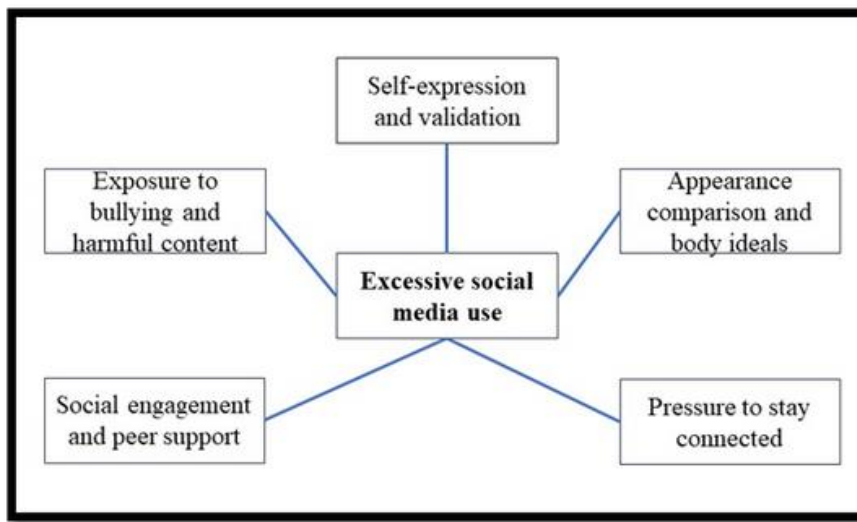
Fig.5. Problems of excessive use of social media on adolescent mental health (Popat & Tarrant, 2023)

A study conducted with adolescents in six districts of Karnataka namely, Mangalore, Mysore, Bangalore, Hubli, Davanagere and Tumkur found that the recreational activities have been reduced among the adolescents from the age group 17-19 years due to the social media and has negatively influenced their interpersonal relationships. Moreover, it has been reported that the cessation of smart phones led them feel distressed (Hemmige, 2018).

Social media has a substantial influence on psychological and mental health of adolescents. The term 'psychological wellbeing' reflects how an individual can live meaningfully according to their deeply held values. A study conducted in 2022 reported anxiety due to Fear of Missing Out (FOMO) to be a significant psychological outcome of over social media usage. The study also revealed that addiction of social media, social isolation, and impact on family relationships are critical social impacts of over utilization of social media (Kaur et al., 2022). In addition, trolling is a recent trend in which people make fun of and criticise others on social media platforms based on their appearance, colour, body image, language, way of life, individual abilities, etc. Anxiety, tension, suicide thoughts, depressive symptoms, and social isolation might result from such trolling incidents. Additionally, the beauty standards that these networks set have a big impact on teenage users of today's social media platforms. The propagation of unrealistic beauty standards is mostly facilitated by peer comparison, peer influence, celebrity culture, cultural conventions, social media algorithms, and commercial or marketing strategies. A study carried out in India, with the study participants aged <18 years to > 29 reveals that the usage of Instagram among higher age people is lower than that of the younger age group. It indicated that the more the number of hours spent on the Instagram, are about 8 % more prone to colourism and 12 % to mental health issues. Furthermore, those who experience social comparison, have a higher likelihood of experiencing colourism and mental health issues. The study suggests that these Instagram using participants , who encounter colourism have about 48 % chances of having mental health problems (Sharma et al., 2022). Another aspect is body image issues, which in main cases is associated with an individual's self- esteem.

Adolescents are prone to cyber crimes. In 2020, Karnataka reported the highest rate of cyber crime and has shown an increasing trend from 2018-2020, with about 5839 cases in 2018 to 10741 cases in 2020 (S. Kaur et al., 2022).Cyber crimes directly or indirectly greatly influences the mental health of the adolescents.

School environment

Adolescent mental health has frequently demonstrated a persistent trajectory towards diverse health outcomes, making it an essential domain for public health policy. Adolescents spent majority of their time in schools and the school environment plays a crucial role in overall development of an individual. School environment is also a place for the adolescent in which peer relationships grow that later affects their social influence in the society. The type of school environment in which the individual is associated with is also considered as one of the factors that is causing mental issues to adolescents. The individuals who experience a negative environment in the schools are more vulnerable to mental problems. The influence of peer groups in the schools can have both positive and negative impact on the individual. Effective peer support may function as a protective factor for teenagers in need of mental health services due to conditions like depression, anxiety, or suicide thoughts. Adolescents who are strongly connected to their peer groups have a greater sense of belonging, but the lack of connection can cause depression and alienation. On contrary, bullying in the schools can severely impact one's mental health. For example, according to a study conducted with German students depicted that in addition to the psychological cyberbullying, relational bullying by the classmates and teachers are associated with the mental health problems (Baier et al., 2019).

According to the study conducted in 5 schools of Gujarat, India, assessing the mental health of the adolescents through the Strengths and Difficulties Questionnaire (SDQ) indicated that 15 % had a high SDQ score, with higher prevalence of emotional problems (9 % borderline and 10 % abnormal) among girls and peer problems (23 % borderline; 10 % abnormal), hyperactivity (5 % borderline; 3 % abnormal) and conduct disorders (8 % borderline; 12 % abnormal) among boys. The study also found that a high risk of mental health problems was associated with challenges with studying at home, eye issues, failing or scoring less than 50% in the previous exam, issues with relationships, and difficulties addressing friends with parents (Nair et al., 2017). In this competitive world, students have high academic pressures, particularly, those appearing for the board exams, that plays a very important role in student's life and therefore, a normal amount of stress is expected. However, studies have shown a higher prevalence of extreme stress and depression among these students. For instance, a cross- sectional study was conducted in 24 schools of Udupi, Karnataka, in 2015 it clearly demonstrates a significantly higher prevalence of stress and depression among the board classes (10th and 12th); with 33 % of stress among 12th class students and 31 % of depression in 10th class students (Verma et al., 2019). Similarly, the study carried out in coastal Karnataka reported that around 17 % of students in 11th class and 14.5 % from class 12th are categorized under high stress category; and around 11 % are classified under extreme stress category for both the classes.

The major stressors identified were not having enough time for revision and other activities, expectation of parents, academic inquiries from relative and neighbours(Mayya et al., 2022). These studies have raised certain concerns that needs to be addressed. While exams are often viewed as important for assessing students' knowledge and skills, the pressure associated with them can indeed have significant implications for students' mental well-being.This pressure can be particularly intense in cultures where academic achievement is highly valued and seen as a determinant of future success. The question is, if these exams so important that it start impacting the mental health of the students, or it is a question for all of us if we are placing these adolescents in such conditions pertaining to our perspectives and expectations with limited support.

Creating a supportive and nurturing environment in schools to reduce the burden of mental health issues requires a comprehensive approach that addresses various aspects of students' well-being. In order to provide a better environment in which the adolescent can fully grow and develop, the schools should provide a positive environment. Fostering positive relationships between the teachers and students will help the students to build their self-esteem Schools can prioritise mental health and support the students to achieve their goals without much pressure. Developing a balanced teaching strategy that prioritises comprehension and proficiency above memorization and exam results is essential and instead of solely focusing on academic achievement, schools can prioritize holistic development, including social, emotional, and physical well-being. The school should also create a supportive and inclusive environment by providing mental health resources such as counselling services and support groups and organise activities to equip students with resilience-building skills and help them navigate challenges and setbacks effectively. Schools can also provide information to either the guardian or the parents in order to give support to their children's mental health. It is critical for schools to enforce and strictly monitor the policies against bullying and harassment, creating a safe and inclusive environment where all students feel respected and valued.
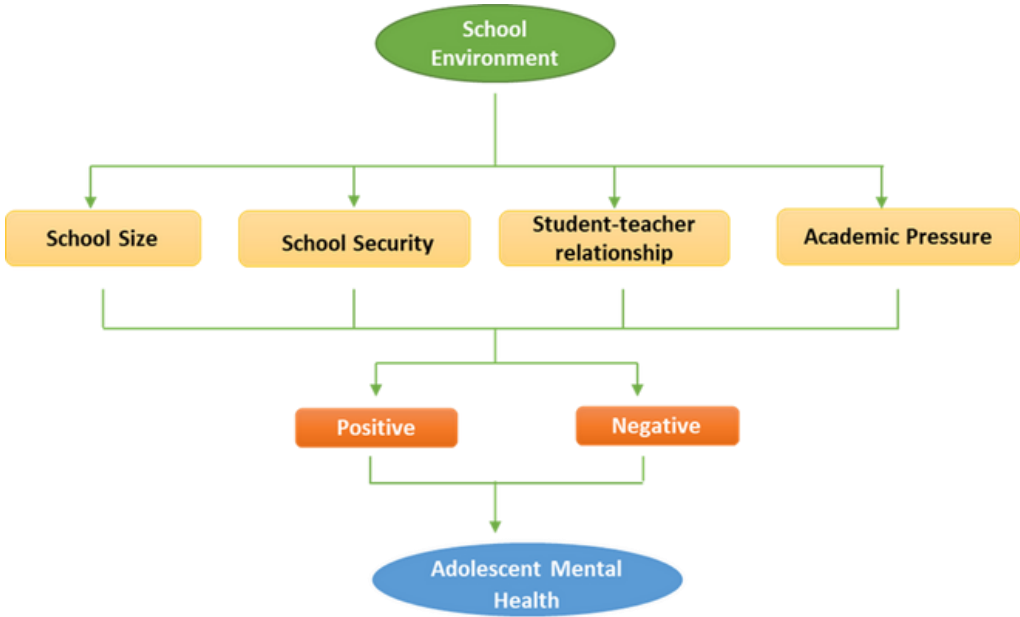
Fig.6. School environment influences on adolescent mental health

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Case studies on types of mental health disorders among adolescents

A plethora of mental health disorder exist among adolescents. Figure 7 represents the most common mental health problems in adolescents.
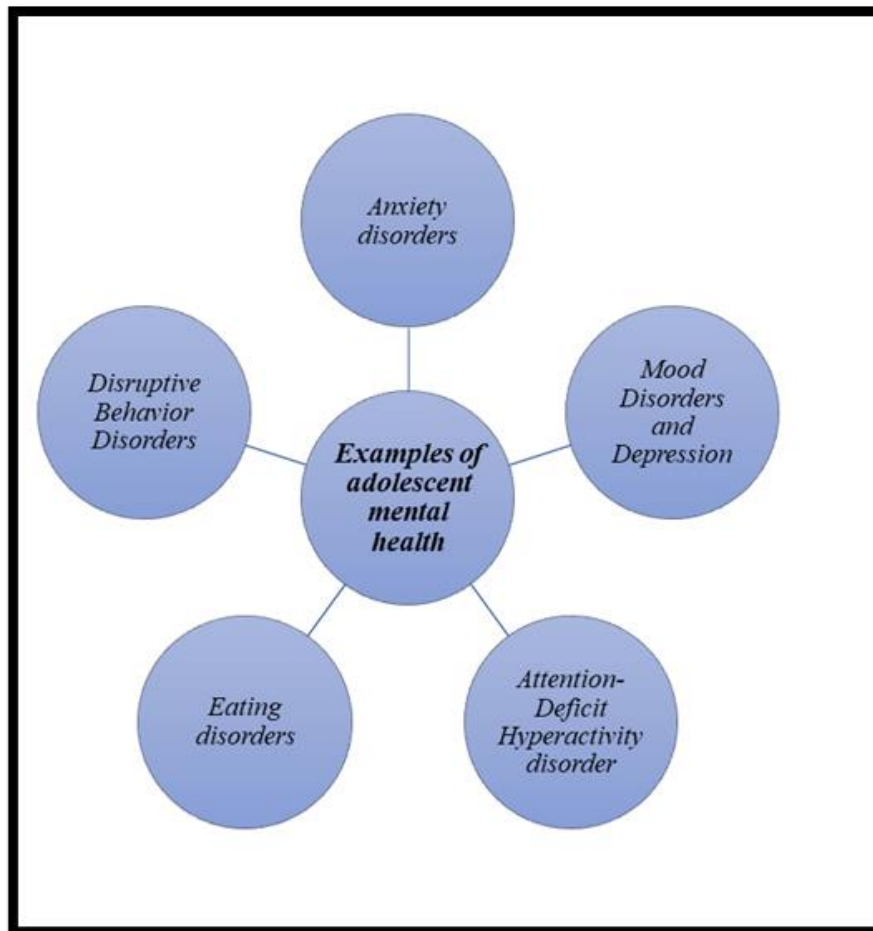
Fig.7.Examples of mental health among adolescents

This section discusses various mental health disorders of adolescents and their sub categories, with the example of various research studies to understand the extremity of the situation.

i. Anxiety disorders:

Anxiety disorders are the most common mental health disorders in adolescents and include generalized anxiety disorder, social disorder, and panic disorder. About 3.6 % of adolescents in the age group 10-14 years and 4.6 % among 15-19 years of age suffer with anxiety disorder (WHO, 2021b).

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Examples from global studies:

According to the research conducted in seven countries (Brazil, Indonesia, China, Russia, Thailand, US and Vietnam) among old adolescents and young adults reported that about 36 % of the sample population have met the threshold criteria Social Anxiety Disorder (SAD), with about 30.8% among the age group 16-17 years and 40.3 % within 18-24 years of age. Not only this around 18 % assumed of not having social anxiety, however they have met and/ or surpassed the threshold for SAD (Jefferies & Ungar, 2020). Focusing, only on the school – going students, another study was conducted in seven countries (Ireland, Belgium, England, Hungary, Netherlands, Austria and Norway) on Child and Adolescent Self- harm, around 14.6 % have mentioned about having thoughts of self- harm and 2.6 % had and experience of self- harm. Additionally, the study revealed a dose-response association between the frequency of self-harm and psychological traits as well as negative life events (Madge et al., 2011).

Example from India:

a study was conducted in Kolkata reported that around 20% of adolescent boys and 18% of the girls in the age group 13-17 years had high anxiety and 32% mentioned that they lack the quality time from fathers and 21% from mothers and a majority of them are not comfortable in discussing their personal issues with either of them (Deb et al., 2010).

Example from Karnataka:

In Dharwad taluk of Karnataka, a research study was conducted with high school students revealed that the academic performance can be a reason for the anxiety among the students as the study depicted that higher the class, higher was the prevalence of anxiety. It revealed that more than 60 % of the students had academic anxiety. Particularly, more than 55 % students from 10th class falls under high level of study anxiety (Sthavarmath & Patil, 2022).
One may assume anxiety among adolescents as a normal outcome of fear, but in reality, this is not the case, particularly when it starts affecting the normal routine and vital areas of life like work, school, or relationships with family or peers.

ii. Depression:

It has been reported that around 1.1 % of the adolescents (10-14 years of age) and 2.8 % in the age group of 15-19 years are suffering with depression (WHO, 2021)

Example from global study:

According to a study conducted in Malaysia with the school students, has shown a prevalence of depression as 17.7 %. The study also revealed that the highest prevalence was among those who experience loneliness (41%), Smoke tobacco (24%), drink alcohol (27.7 %), drug abuse (48.6%), who were bullied (29 %) and lack of supervision from parents (22.9%) as compared to those who didn't experience all the mentioned (J. Kaur & Cheong, 2014)

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Example from India:

Anxiety and depression can co-exist. A lot of factors are responsible that directly or indirectly may result in depression. One such example is body image issue. Societal believes on how a person should look like have a great influence on their mental health, particularly adolescents. A cross – sectional study conducted in Sangli district of Maharashtra with college students under 19 years of age revealed that more than 20% of them had body image anxiety, 19.4 % have social phobia and 33 % are suffering from depression The study also suggested that the social phobia and body image anxiety are associated with development of depression among adolescents. Among adolescents with body image anxiety , 55.6% of them had depression, and 71% among those with social phobia and more than 85% with co-morbidity (Waghachavare et al., 2014).

Example from Karnataka:

A cross – sectional study in three government schools of was conducted in Ramngara district of Karnataka. It revealed that around 39% adolescents were suffering from depression. A few of that factors that were found to be associated with the depression includes frequent parent fights (66.7%), death of family member (50.7%), illness among the family member (66.7%), family member with mental health illness (65%), and many more like feeling pressurized by parents to perform well, non-participation in sports, etc. This single study has directed towards numerous factors associated with the depression; however, the list is long (Hanspal et al., 2019).

The mentioned studies have provided with a guiding platform to understand and address the potential determinants of the adolescent depression.

iii. Eating disorders

Adolescents and young adults have suffered greatly from eating disorders, which are aberrant eating behaviours mostly rooted in body weight and shape struggles. These disorders can even result in pre-mature deaths. According to WHO, Anorexia nervosa has claimed fatalities than any other mental illness (WHO, 2021a). A recent systematic review and meta- analysis reported that the global prevalence of eating disorder among children and adolescents is nearly 22.4% (L pez-Gil et al., 2023) and this prevalence direct towards the emerging public health concern among the adolescents. There can be many risk factors for eating disorders like body dissatisfaction, desire to have a thinner body, severe concerns on weight gain, obsessive thoughts on eating, inducing compensatory reactions, beauty standards set by the society, and promoted by the various form of media (Izydorczyk & Sitnik-Warchulska, 2018).

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The following figure describes the prevalent signs of eating disorders.
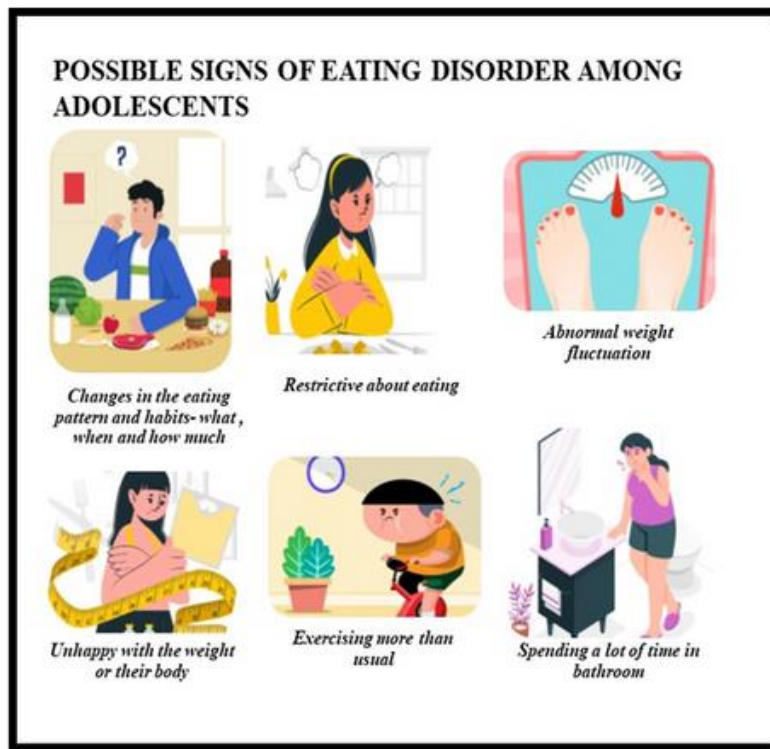
Fig.8.Possible signs of eating disorders

A study conducted with the medical students in Kerala reported that around 19 % of them are at risk eating disorder and was significantly related with the depression, anxiety and stress along with body concerns. Body shape concerns were prevalent among 38 %, 36.4 % of them have suggestive symptoms of depressions and similarly for anxiety and stress was >40 % and >20% respectively (Tomy et al., 2021).

A study conducted in Udupi, Karnataka reported that around 31% adolescents are at risk of developing eating disorders. The study also depicted that around 15 % adolescents were affected by the magazines and TV in order to lose weight. Also, adolescents at risk of developing eating disorders were found to be 21.47 times more likely of assuming or perceiving themselves as fat and those influenced by famous personalities were around 2.4 times of perceiving themselves as fat (Singh et al., 2016).

In current scenario binge eating is very much prevalent, however only *Anorexia nervosa* and *Bulimia nervosa* are represented in the Global Burden of Diseases, injuries and risk factor study. According to a study published in Lancet in 2021 revealed that in 2019 around 41.9 million cases of global eating disorder were unrepresented , among which 17.3 million were cases of binge-eating disorder (Santomauro et al., 2021).

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A study conducted using Copenhagen Child Cohort Study reported that around 8.5% of the adolescents are engaged in weekly binge eating with loss of control. It also suggests a correlation with the overweight, low-self-esteem, body dissatisfaction and mental health concerns including behavioural issues, peer-relations, emotional, and inattention.Even 2.6 % have also reported Binge Eating Disorder attributed to DSM-5 criteria (Olsen et al., 2021). In Belgaum, Karnataka, a cross – sectional study was conducted with adolescents aged 17-19 years of age. The study indicates that about 43.5% of the adolescent students eat when they have a feeling of loneliness, and around 24 % when they upset. About 40.8% eat when feeling bored. Even more than 20 % eat until their stomach hurts (Naidu et al., 2017).

All these studies indicate that globally, eating disorder is an emergency public health concern among adolescent population, and multiple determinants account for this disorder. This suggests that eating disorders is a key area to direct the efforts in order to improve the mental health outcomes. This not merely an abnormal dietary habit, but has ingrained multiple risk factors.

iv. Conduct disorder

It is an emotional and behavioural mental health concern where children and adolescents cannot compliant to the rules, find it difficult to show empathy and to behave in a socially acceptable way, respecting others and their rights, and usually express delinquent behaviour (AACAP, 2018).
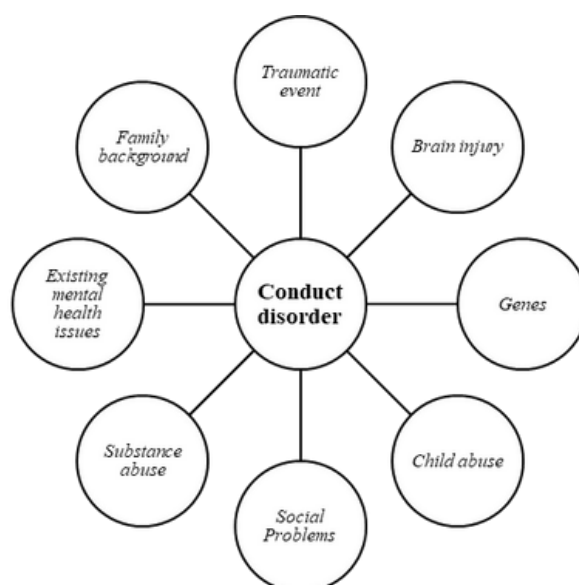

Fig.9. Risk factors for conduct disorder

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The above figure demonstrates various risk factors for conduct disorder. The children having dysfunctional, disorganised and disadvantaged family background are more prone to develop conduct disorder. For instance, according to the clinic – based follow up study conducted with children in the age group between 6 and 18 years who enrolled for the behavioural paediatrics unit OPD , and met the ICD-10 Diagnostic Criteria for conduct disorder depicted that around 8% have family history of psychiatric illness , 22% with alcoholism and domestic violence , about 10 % of the child and mother have been abandoned by the father (Jayaprakash et al., 2022). Such disorganised family environment are potential determinants for the development of conduct disorder and uncontrollable increase in its severity.

The following figure explains the potential symptoms of conduct disorder. The mentioned broad category, involves bullying, cruelty, molestation, vandalism, theft, fights, etc.

Fig.10.Symptoms of conduct disorder

A cross-sectional study was carried out in Nigeria, with juvenile inmates of borstal institution has shown than more than 50% of the incarcerated adolescents had conduct disorder. Of which, majority of them had lost at least one of the parents under the age of 5 that means absence of scrutiny, socializing force and lack of internalization of appropriate behaviours and values at age when the child start developing the conscience and absorbs the surrounding factors, values, habits and behaviours. The study has also shown the importance of family size in determining the conduct disorder among adolescents which appeared to be around 4.6 times among those with more siblings as compared to those with a smaller number of siblings. Furthermore, it also indicated that the juveniles with prior experience of being incarcerated have likelihood of developing conduct disorder by five times (Olashore et al., 2016).

An appropriate set of interventions needs to be in place in order to prevent the severity of the situation and their involvement in high-risk behaviours such as substance abuse and get trapped in the cycle of offences.

Substance Abuse in Adolescents

WHO defined Substance abuse as the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs (WHO, 2023). It is also the misuse or excessive use of drug. The most often abuse by adolescents include alcohol, marijuana tobacco, prescription drug , hallucinogens, cocaine, amphetamines, opiates, anabolic, steroids, inhalant, methamphetamine (Substance Abuse/Chemical Dependence in Adolescents, n.d.).

Drug use in adolescence is a very risky proposition. Substance abuse, even in low amounts (such as alcohol, marijuana, and inhalants), can have unfavourable effects. Schools, relationships and family relationships are among the life areas that are most influenced by drug abuse. The indication of growing drug usage among teenagers is when drug use permeates their everyday lives. Relationships with family members may become more strained or contentious, and friendship groupings may alter (AAMFT, n.d.).There are some factors associated with substance abuse i.e. genetic predisposition, social pressure, environmental factors, psychiatric problems and certain personality characteristics. Substance abuse has many effects such as damaging organs of the body, causing addiction, loss of relationship and possibly death.

Family history of substance use	Favorable parental attitudes towards the behavior	Poor monitoring
Family rejection of sexual orientation or gender identity	Association with substance using people/peers	Childhood sexual abuse
Low academic achievement	Mental health	Family conflict

Fig.11. Risk factors for substance abuse
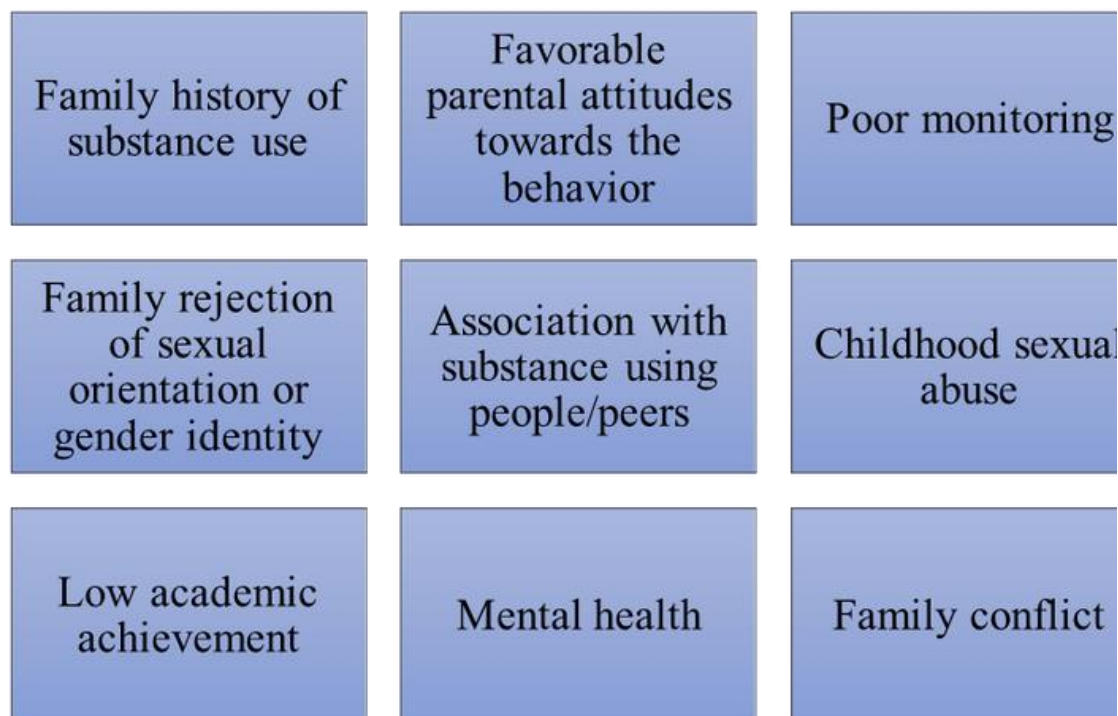
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The above diagram shows the factors that place adolescents in developing substance abuse. In India, the drug abuse epidemic among the younger population has taken frightening new proportions. Early adolescence (12–14 years old) to late adolescence (15–17 years old) is a significant risk phase for the onset of substance use, and young individuals (18–25 years old) may experience a peak in substance use (UNODC, 2018). According to the UN report, 2018, the prevalence of substance abuse of opioids, cocaine, amphetamines,tranquillizers and sedative among adolescents aged 10-17 years in India is 1.78%, 0.06% , 0.18 % and 0.58 % respectively (World Drug Report 2023 - Statistical Annex). The National survey on extent and pattern of substance use in India, 2019 states that the prevalence of inhalant abuse among children and adolescents is higher than that of adults , 1.17 % vs 0.58% (Ambedkar et al., 2019).

Fig.12. Social perspectives on how adolescents and young people get into drugs

The figure above explains potential reasons that might act as a driving force for the adolescents and young people towards substance abuse including alcohol and tobacco. This includes peer influence, easy access of drugs, association with the drug dealers or other substance abusers, etc. Youngsters may find it as an easy way of relaxation as it gives feeling of euphoria and boost up confidence. For instance, a study conducted in United States with adolescents between 13-17 years old reported that about 8.6 % had social phobia, 4.4% had agoraphobia, 4.7% were experiencing separation anxiety, around 8.6 % had General Anxiety Disorder (GAD) and Overanxious Disorder (OAD) and 3.2% had OCD, depression was prevalent among 9.6% and 11.5% had disruptive disorder. Moreover, around 10.8% were involved in drug use, 7.8% were engaged in cigarette smoking, 19% use to drink frequently. revealed that among adolescent boys, cigarette smoking was associated with social phobia and for girls, it was separation anxiety, OCD, and OAD/ GAD.

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It also suggested that OCD was associated drug use among boys, while in case of girls , it was separation anxiety, agoraphobia along with OCD (Wu et al., 2010). Another study that was carried out in Dakshina Kannada, Karnataka, India reported that more than 60 % of the adolescent participants were engaged in substance abuse at some point of their lives , giving feeling of relaxation ,when they were stressed , especially owning to the academic performances (Dsilva et al., 2023).

Particularly among adolescents and young adults' substance abuse and mental health disorders needs to be addressed together, as both of them are interlinked. One may indulge in using drugs, alcohol, tobaccos and other substances to alleviate the negative feeling, however, eventually they get trapped in the cycle as the unavailability of such substances can lead to adverse mental state.

Intersection of violence and adolescent mental health

The intersection of violence and adolescent mental health is a complex and critical issue that has significant implications for the well-being of young people. Violence might be perceived as a social problem, but along with this, it is a public health challenge as well. Violence and abuse have diverse forms, and it impacts differently on the mental health of the adolescents. Adolescents can have a profound impact if they are either exposed to violence or have witnessed it, which can lead to symptoms of anxiety, PTSD, depression, and behavioural problems. Such adolescents may be at a higher risk of perpetrating violence themselves. A study conducted with the school students in the city of Barretos, Southeastern Brazil,in 2004 suggests that more than 30% of them have experienced violence and compared to people who had not experienced violence, those who had was twice as likely to suffer from mental health issues. The most significant risk factor was anticipated to be exposure to violence. Moreover, the intra-familial violence appeared to be more influential in impacting adolescent mental health (Paula et al., 2008). Furthermore, Adverse Childhood Experiences (ACEs) can have severe consequences in the adolescence. Study shows that Childhood Sexual Abuse is significantly associated with the anxiety disorders, mood and substance abuse. A research study was conducted in Kerala, India, in 2014 with 600 youth. Though the participants were in the age group of 17-24 years, but it has revealed that how ACEs can impact the present life of the youth. The study has shown that more than 90 % of the study participants had ACEs. It also indicated that the odds of experiencing physical and sexual abuses, and risk for depression in adulthood was twice greater among males than females (Damodaran & K, 2019).

Adverse Childhood experiences can remain with the child throughout their life, trapping them with a feeling of terror, sadness, anxiety, anger, and confusion, which might manifest as nightmares, flashbacks, hypervigilance, and avoidance behaviours.

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Another example is of the children with the history of child labour. Many children engaged in labor, particularly, in hazardous or exploitative conditions, suffer from trauma and chronic stress. This can result from physical exertion, exposure to dangerous substances or environments, long hours, and abusive treatment by employers. The effects of child labour on mental health are frequently exacerbated by intersecting factors like poverty, discrimination, gender inequality, and limited access to social services and healthcare. According to a study carried out in India, with 132 such adolescents, who have started working between the age bracket of 4 to 17 years. More than 80% of them have experienced some form of abuse or neglect, where more than 70% were abused by weapons, emotional abuse was reported by more than 45%. All of these experiences have resulted in phobia , conduct disorder, PTSD, somatisation , dysthymia, etc. (Pandey et al., 2020).

Intimate partner violence among adolescent and young girls can lead to poor SRH outcomes like Sexually Transmitted Diseases, teenage pregnancy, followed by poor life style, poor learning outcomes that overall impacts the mental health of adolescent girls and young women, leading them to depression, anxiety, and trauma. Furthermore, IPV during pregnancy can worsen the situation. (Duby et al., 2021; Thomas et al., 2019). This can be depicted from the study conducted with adolescent pregnant women in New York city between 2008 to 2021 revealed that about 39 % of the study participants reported experiencing some form of IPV during the prenatal period. More than 50 % had a high prenatal distress, around 41% of the adolescent girls were depressed and 19% reported to have anxiety. One in five individuals engaged in bilateral violence with their partner, putting the well-being of the entire family at threat. The multiple adverse birth, neonatal, and baby outcomes are closely linked to the adolescent mother's poor mental health. (Thomas et al., 2019).

The figure explains that the IPV can directly impacts the adolescent mental health. However, it may also lead to poor SRH outcomes, can impact the learning and overall, well – being, thereby resulting in the poor mental health outcome among the affected adolescents.
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Fig.13.Intersection of violence, SRH, and mental health among adolescents

The figure explains that the IPV can directly impacts the adolescent mental health. However, it may also lead to poor SRH outcomes, can impact the learning and overall, well – being, thereby resulting in the poor mental health outcome among the affected adolescents.
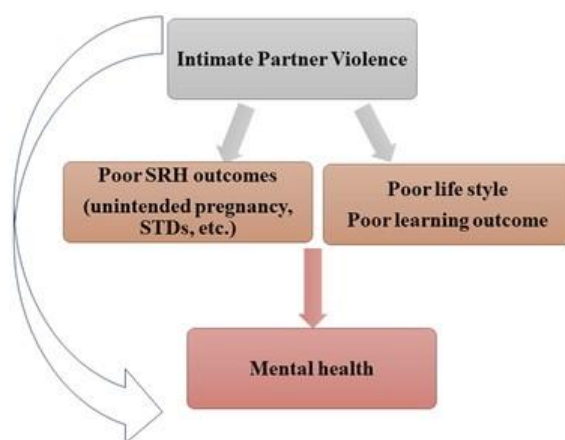
Intersection of Sexual and Reproductive Health with Mental Health among Adolescents

The complex, dynamic, and diverse confluence of adolescent sexual, reproductive, and mental health is influenced by a plethora of social, cultural, and biological variables. The adolescents during this stage of life are struck with the numerous doubts, dilemma, questions with uncertainties and limited knowledge pertaining to the body changes and growth, sexuality, sexual intercourse, lack of awareness about the contraceptive methods, limited sex education, good touch bad touch, decision making ability, which gets worsen by the lack of support. This may lead to the detoriation of mental health among adolescents if not managed properly and timely. The poor SRH outcomes may negatively influence the mental health outcomes among the adolescent population. The poor SRH outcomes may include unintended teenage pregnancies, abortions, HIV and other STDs, etc.

When teenage girl becomes pregnant, the likelihood of pregnancy related complications increases, leading to poor pregnancy, maternal and child health outcome, including psychological morbidity among the babies, impacting their developmental growth. These adolescents are also vulnerable to postpartum depressive symptoms (Punjani et al., 2022).
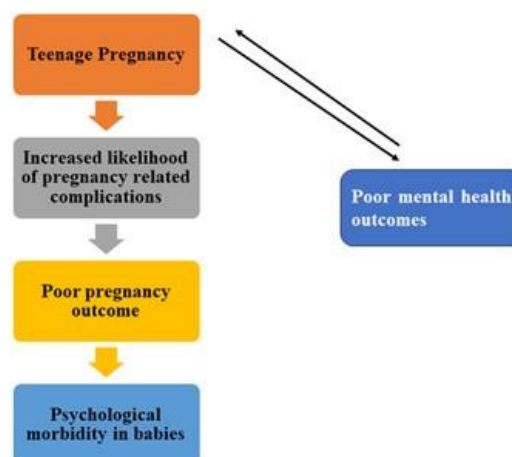

Fig.14. Teenage pregnancy and its impact

Adolescent pregnant women are particularly vulnerable because they have to balance the strenuous developmental obligations of puberty with the role of parenthood .A cross- sectional study conducted in South Africa with 326 adolescent pregnant mothers utilising the maternal health services revealed that about 16 % had depression and the prevalence of post- partum depression was 8.8 % (Govender et al., 2020). Not only this, poor SRH outcomes can also lead into suicide among adolescents. It has been reported that in low- and – middle income countries, the prevalence of perinatal depression is 63 % higher among teenage mothers than in adult mothers (Gelaye et al., 2016).

Rates of suicidal ideation, defined as the thought of killing oneself, are highest among adolescents on the African continent, with HIV as a contributing factor (Duby et al., 2021).
The coping mechanism from mental health related illness can differ from adolescents to adolescents, however, it is a matter of concern when the coping mechanism are harmful that will trap them in a vicious cycle of mental health illness and risk behaviours, one such example is risky sexual behaviour. Adolescents can indulge themselves in sexual activities to overcome come depression (Miller, 2002). A study carried out using the data from National Longitudinal Survey of Adolescent Health summarises that , boys who did not use condoms and both boys and girls who had a history of sexually transmitted infections were linked to depressed symptoms. (Shrier et al., 2001).The risky sexual behaviour may lead to the Sexually Transmitted Diseases among the adolescents.

Many adolescents struggle to understand their sexuality, which can increase the level of stress among them. According to a prospective cohort study conducted in the UK, sexual minorities have higher rates of depressive symptoms than heterosexuals do. They are also four times more likely to report a history of self-harm with suicidal intent at age 21 and to have self-harmed at ages 16 and 21. (Borschmann & Marino, 2019). LGBTQ+ adolescents have their own set of challenges that they encounter with themselves, family and community. The intersectionality of sexuality, age and mental health is a public health concern that needs to be addressed at priority.
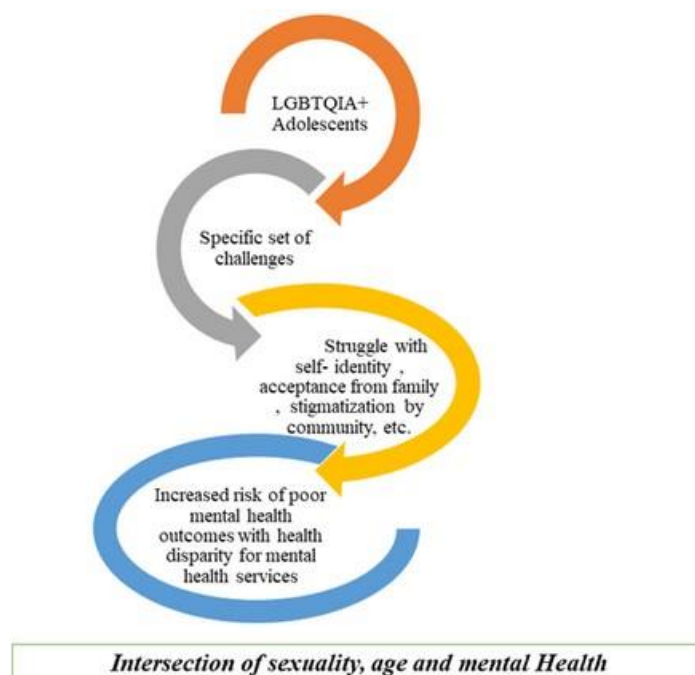

Fig.15. The intersection of sexuality, age and mental health

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According to a study conducted with LGBT youth in India identified stressors such as stigma, challenge abuse depression, suicidal thoughts, etc. Stressors like victimisation and violence, along with depression, also elevate the likelihood of alcohol consumption and dependency. (Wandrekar & Nigudkar, 2020). With the existent stigma along with the disparity in mental health services for these adolescents can result in adverse outcomes. Adolescents' experiences of sexuality and mental health are shaped by intersecting identities, including race, ethnicity, socioeconomic status, and disability. LGBTQ+ adolescents from marginalised backgrounds may face compounded discrimination and barriers to accessing support, which exacerbates the gaps in mental health.

Adolescent mental health in emergencies

Adolescent mental health is itself a major public health concern in general, adding to this, the emergency conditions such as COVID-19 pandemic, disasters, conflicts, etc. aggravate the existing issue and make the afflicted adolescents more vulnerable and results in immediate and long-term poor mental health outcomes due to various reasons like migration, enhanced poverty, violence, loss of loved ones, isolation, deprived education, lack of support, disrupted supply of basic needs, etc. and interferes with their overall development. The likelihood of developing post-traumatic stress disorder can be high among such adolescents. Along with impacting their mental health, such conditions can also indulge and trap the adolescents into substance abuse.

The responses of children and adolescents to various situations vary and may include nightmares, stomach ache, headaches, fear, etc. Even aggressive behaviour and social isolation can also be observed in some of them (UNICEF, 2023a) .This calls for taking appropriate actions on the mental health support for children and adolescents during humanitarian crises to improve their quality of life. This is important, particularly in today's world where children at younger ages are exposed to many adversities, in addition to the natural disaster and the COVID-19 pandemic, that have sensitized the world about the importance of mental health. Globally, many conflicts and wars are taking place, and the future of such children and the world as a whole is at stake.

Let's take an example of children living in Kashmir, who have been exposed to armed conflict from years. These repeated exposures to the conflicts and spending the childhood and adolescence in the continuous violent environment can develop anger issues, frustration, fear, etc. For instance, a cross-sectional study conducted in Kashmir reported that around 23% of the students and/ or young adults have been subjected to extremely high traumatic exposure, more than 30% have experienced high and moderate traumatic exposure each, overall that resulted in stress among 97%, apprehension on curfews and search operations (89.2%), 88.3 % have either witnessed the protest or were part of it, 76.5 % with any family member, friend or relative got hit during the explosion, pellet or bullet, followed by the exposure to the violent media portrayals (74.3%) (Dar & Deb, 2022).This data itself is self- explanatory to understand under what mental health conditions , these youth must be living and spending their learning and development period, that might also influence their behaviour.

The war is severely violating the basic rights of children and adolescents. For almost a year, children have lived with sufferings, fear, tragedy, loss and violence post Ukraine- Russia war in 2022 leaving about 1.5 million children at risk of PTSD, anxiety, depression, etc. (UNICEF, 2023b). Such exposures at the early stage can haunt them through their life, impacting their quality of life.

The globally experienced health emergency of COVID-19 pandemic has pushed many people towards mental health challenges. Adolescents too have encountered with it. A population-based study conducted in UK using the electronic health records reported that in the age group of 13-16 years, the observed incidence of eating disorder was around 42.4 % higher than the expected and that too among 17-19 years was 32 % higher than the expected. Similarly, the percentages were about 24.3 % higher among the adolescent girls of age 10-12 years for self- harm and 38.4 % for girls in the age group 13-16 years (Trafford et al., 2023).

A retrospective review of psychiatric emergency records was conducted in India to analyse the mental health emergencies among adolescents in pre and during the COVID-19 pandemic resulted in about 219 adolescent psychiatric emergencies post pandemic onset. It also reported that self – harm was accountable in around 44 % of the adolescents in the pandemic group for the referrals (Sen et al., 2023). Similarly, a study conducted in Karnataka, India reported that prevalence of depression and anxiety among adolescents were 24 % and 20.2 % respectively. Even around 17% had suicide ideations as well during the COVID-19 pandemic. The study also reported positive correlation between depression and anxiety with the hours spent on social media (Augustine et al., 2023).

The report published by NIMHANS mentioned that during COVID-19 pandemic , when OPD services , were broken , tele-follow-up consultations were initiated by the Department of Child & Adolescent Psychiatry for already registered inpatients and outpatients, with about 2993 follow-ups (NIMHANS, 2022).

Climate change and subsequent disasters leads to many adversities that further affects the mental health of the adolescents. Adolescents who witness the devastation of families, communities, and natural surroundings may experience long-lasting psychological repercussions. Feelings of loneliness and unpredictability about the future might result from disruptions to social networks, habits, and support systems caused by displacement.

For example, after the spring tornado outbreak of 2011, many individuals have encountered mental health challenges. A study was carried out with 2000 adolescents and caregivers among tornado afflicted community. The study reveals that around 6.7 % adolescents satisfied the diagnostic criteria for PTSD and 7.5 % for MDE (Major Depressive Episode) since the tornado, with significant risk of both PTSD and MDE among females, injured family member, adolescents having previous experiences of trauma and other factors like concerns about other's safety, loss of services, for PTSD (Adams et al., 2014). PTSD can arise in certain individuals who have gone through a disturbing frightening, or fatal experience.

It's normal to experience fear both during and after a distressing event. They may frequently has nightmares and flashbacks of the horrific incident, and they may feel alone, irritable, and guilty (NHS, 2021).In India, a study was carried out at high school among disaster affected adolescents in Uttarkashi district , reported that around 32.8% of the children continued to experience PTSD , even after the 3 months after the disaster (Nisha et al., 2014).

In conclusion, humanitarian emergencies have a profound and multifaceted impact on the mental health of adolescents, influencing their emotional stability, social relationships, and overall development. These crises, whether caused by conflict, natural disasters, or public health emergencies, can contribute to increased stress, anxiety, depression, and post-traumatic stress disorder among adolescents. The unique vulnerabilities and developmental characteristics of this age group make them particularly susceptible to the negative impacts of such crises.

Adolescent Mental Health: A Case Study of Mangaluru District, Dakshina Kannada

Government of Karnataka on October 10, 2014 launched "Manochaitanya programme" i.e. Super Tuesday clinic, an initiative for the mental health care at primary care institution, where psychiatrist provide special services to mentally ill on every Tuesday. It is the first state to initiate this unique programme (Govt. of Karnataka, n.d.).

The Mangaluru city of Karnataka, is attracting many adolescents and youngsters from various parts of the country owing to its good education, particularly in the medical field, which also means, the city is subjected to various exposures as well. Also, majority of the migrant school and college students can have high likelihood of indulging in high-risk behaviours and developing mental health issues.

A study conducted in Mangalore from 2015-2016 with adolescent students revealed that more than 50 % living with depression and 25% with anxiety. Around 36% have social phobia. The study also indicated that around 10% of the parents' consumed alcohol, a few of them had seen conflicts in the family (>10%), more than 25% have experienced financial difficulties in the family , around 23% have encountered with bullying in the schools, 30 % have experienced mental stress owing to the parental expectations (Sowndarya, 2016).

As mentioned earlier, substance abuse and mental health are linked. Like other cities of India, adolescents and young adults in Mangalore are also not refrained from substance abuse. For instance, a study has shown that more than 59% of the study adolescents were involved in life time use for both legal and/ or banned substances, with the highest use of alcohol and cigarettes with 34.8% and 28.6% respectively.

Hostellers were found to be using such substances more than that of day scholars (76% vs 52%). However, for banned substances, prevalence was high among day scholars than that of the hostellers (28% vs 17%). Shockingly, study also suggested that around 16% were everyday users. Majority of these substances are used during parties and on weekends. The qualitative part of the study with adolescents and other stakeholders indicated that it acts as an easy coping mechanism for adolescents for depression, anxiety related to academic performances, relationship issues, and it also help to raise the self- confidence. Some of the stakeholders have also pointed out that inadequate monitoring of hostellers, inappropriate parenting, giving a plenty of money might have resulted in higher prevalence of substance abuse among adolescents (Lobo et al., 2023).

A study conducted in Dakshina Kannada, reported that around 90% of the adolescents were experiencing concerns on body shape in order to look good, validation from opposite gender, to be get more friends, be popular and to be healthy in the similar order as mentioned. More than 35 % are facing body dissatisfaction. The study also shows that adolescents reporting body dissatisfaction were dealing with low self- esteem Concern on having healthy body weight is somehow acceptable, however , body dissatisfaction at an early age can push these adolescents towards poor mental health , making them vulnerable to eating disorder (Prabhu & D'Cunha, 2019).

Like many other children, adolescents and young adults, social media has also negatively influenced the behaviour and mental health of the adolescents in Mangaluru. For instance, a study carried out to understand assess the impact of social media on adolescents' states that the study adolescents were social media addicted and feel frustrated and mentally disturbed if online. It has also reported that social media has impacted their concentration, self- esteem, limited face- to- face contact and they also envy on other people's life (D'Mello & Monteiro, 2019).

Adolescent mental health programmes,schemes, and policies

The importance of adolescent mental health disorders across the life course has emerged in the last few decades. Additionally, there is rising support for bringing mental health from the sidelines to the forefront of development and health agendas. The issue of adolescent mental health has been addressed in large part by a number of international organisations.

Important campaigns to increase awareness of mental health have also been launched, such as the 2018 Lancet Commission on Global Mental Health and Sustainable Development, the WHO-led Mental Health Gap Action Programme (mhGAP), the joint WHO/UNICEF Helping Adolescents Thrive initiative, the 2016 WHO Comprehensive Mental Health Action Plan 2013-2020, and the Lancet Commission on Adolescent Health and Well-Being. According to the initiative, even in areas with limited resources, tens of millions of people might receive treatment for depression, schizophrenia, and epilepsy, suicide prevention and start leading normal lives if they had adequate care, psychological support, and medicine (WHO, n.d.-c),mhGAP-IG (Mental Health Gap Action Programme-Intervention Guide) has been implemented in more than 100 countries and translated into more than 20 languages as of 2018 (World Health Organization, 2018).

A study conducted in Ukraine, Armenia, Geogia, and Kyrgyz Republic to evaluate the effectiveness of the mhGAP programme. The mhGAP was introduced into the curricula of practicing physicians, medical students, interns, and residents in family medicine and neurology, as well as master's programme in mental health. The study suggested that mhGAP-IG can be adapted and applied to the undergraduate and postgraduate education levels and among medical and non-medical specialists (Pinchuk et al., 2021). Similar findings supportive of the mhGAP-IG was observed in a cross-sectional study conducted in 9 countries between December 2018 to June 2019. The study also revealed some challenges related to finances, support from the institution and faculties (Chaulagain et al., 2020). The collaborative initiative of World Health Organization (WHO) and United Nation International Children's Emergency Fund (UNICEF), the Helping Adolescents Thrive (HAT) is a toolkit designed to strengthen policies and programmes for the mental health of adolescents. To be more precise, the initiative aims to prevent mental health disorders and promote mental health. Moreover, UN and UNICEF have also prioritized Mental Health and Psychosocial Support (MHPSS). There are examples documented from many countries that have applied integration approach to achieve better mental health outcomes of student at school. For instance, during COVID-19 pandemic, the Royal Thai Government and UNICEF introduced HERO initiative, which is an application that will support the teachers for monitoring the students with the emotional, social, and behavioral problems and also for the situational analysis on the MHPSS services. Ministry of Education was also involved to improve the school environment, curriculum, cultures social and emotional skill building, etc Likewise, MHPSS programme was integrated in many mental health programs of different countries, such as the Adolescent Mental Health and Suicide Prevention (AMHSP) programme of Government of Kazakhstan, an inter-sectoral, school-based response that aims to strengthen the national education and health systems' ability to respond to adolescents' mental health and psychosocial needs. The education system in Ecuador created a service called DECE (Department of Student Counselling) (UNICEF et al., 2022).

WHO, UNESCO and UNICEF came up with 5 vital pillars to promote and protect mental health and psychosocial well – being in schools and learning environment.

5 essesntial pillars

- Create an enabling learning environment for positive mental health and well- being
- Guarantee access to early intervention and mental health services and support
- Promote techer well - being
- Enhance MHPSS capacity in the education workforce
- Ensure meaningful collaboration between the school, family, and community to build a safe and nurturing learning environment

Government of India launched Rashtriya Kishor Swasthya Karyakram in 2014 with a holistic approach to improve nutrition, Sexual and Reproductive health, mental health, prevent injuries and violence , prevent substance abuse and address Non-Communicable Diseases (NHM, 2014).There are other policies as well like National Youth Policy , 2014; National Mental Health Policy, 2014; and National Mental Healthcare Act , 2017. As mentioned earlier, Government of Karnataka has launched Manochaitanya Programme in 2014.Also, Manasadhara centres were also announced in 2013-14 budget, which is a state government funded Community Mental Health Day care programme (Satheesh, G et al., 2019).

Various applications were also developed as a part of such programme like SAATHIYA SALAH. In 2021 , Mental Health and Normalcy Augmentation System (MANAS) app was also launched (Girase et al., 2022). However, the question is how many adolescents and young adults were aware about these apps or about the programmes. For instance, a study conducted in Madhya Pradesh indicated that only 9.5 % of the adolescents knew about the Adolescent Friendly Health Clinics, an essential component of RKSK programme and the utilization rate of the services was only 2.74 % (Bali et al., 2022).

A study conducted to review these policies, and programme along with the interviews from key informants suggested that the stress, anxiety and depression were the common mental health challenges among the adolescents. It also indicates that these documents that adolescents' mental health is affected by the educational and social determinants, however, social norms, parental conflicts and other determinants were not focus appropriately. Interestingly, it depicts a true reality and a loophole in the policy and programme development that youth participation and critical role of youth engagement in the development was not mentioned appropriately (Roy et al., 2019).

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Government of India is taking several steps to improve the condition of adolescents. However, policy development and its implementation are not enough. It is critical to understand the status of program implementation, the best practices, challenges, which needs stringent monitoring. Each and every state needs to document the implementation status of such initiatives if improving the health and well- being of the adolescents is actually a priority and not merely one of the several programs implemented without knowing the actual effectiveness. For the success of these initiatives, inter-sectoral approach and collaborative decision – making of the central and state government is vital. They need to discuss the priorities together. Research institutions and NGOs can be instrumental in programme implementation, evaluation and bridging the mental health treatment gap.

Interventions and Recommendations

Now, from past few years, mental health has finally received the required attention, however, the silent struggle of adolescents has most of the times remained ignored, remained hidden and neglected. Overall, the document has clearly depicted the need to prioritize the adolescent mental health, particularly in today's era where they are exposed to many vulnerabilities, high-risk behaviours, abundance of addictions, low self-esteem, with lack of support, inappropriate information and counselling. Nevertheless, changing family structures, increased rates of divorces, single parent preferences, social isolation, overemphasis on indoor cultures, overdependence on electronic led lifestyles, own interpretation of life and relationships are having a sizeable influence on how adolescents embrace a meaningful future filled with enterprise and hope.

A UNICEF document On My Mind have documented some successful interventions that have positively impacted the adolescent's mental health. For instance, SEHER (Strengthening Evidence Base on School- based intErvenetions for pRomoting adolescent health, an initiative that has taken place in Bihar, India. It was functional at a large scale. It started as a whole – school, multicomponent mental health promotion programme and in integration with the life- skills training programme. It also focussed on providing counselling at an individual level to those in need. The programme evaluation depicted that it has developed a positive environment in the school, focusing on strengthening the relationship between students and teachers. It resulted in a reduction of depression, violence and bullying by encouraging positive attitudes among students (UNICEF, 2021b).

Following are a few sets of interventions and recommendations to improve the mental health outcomes and quality of life of adolescents:

1. Government policies and programs need to be effectively implemented at the ground level by coordinating parents, teachers, and health workers.
2. The effectiveness of Mental Health Education in the educational/school curriculum needs to be monitored for the potential improvement and brain health of adolescents.
3. Mental health is also a normal health issue like other health concerns, not a decision, we need to talk about mental health. It should not be ignored by the Government, parents, health workers etc.
4. The quality of current and future systems of Mental Health Care for adolescents should be accessible, acceptability, appropriate, effective and should ensure equity regardless of caste, creed, race and gender.
5. At a National, state and district level, reliable data on age wise distribution of mental health needs to be available in order to advocate for the better and evidence – based adolescent mental health policy.
6. A fixed percentage of health budget needs to be allocated for research and development in the area of adolescent health to understand the specific triggers, intersectionality, preventive measures, etc.
7. Strengthen the national adolescent health programme by providing sufficient financial assistance and rigorous monitoring and evaluation for effective implementation at the grassroot level.
8. While forming policies and initiating adolescent mental health program, the mental health of LGBTQIA+ adolescents need to be specifically considered.
9. Adolescent mental health cannot be deal as an independent public health issue, intersectional and holistic approach must be implemented.
10. A special provision needs to be in place for supporting the adolescent's mental health during humanitarian crises.
11. Regular counselling and workshops for all the adolescents and young adults should be organised at village level, school level as well as at the level of community to empower the younger minds to understand their trigger, strengthen emotional intelligence and techniques to cope up with the stress.
12. The counselling should not be limited to the adolescents only, it has to include parents, family members, teachers, wardens and all the relevant people that directly and indirectly interacts and impacts the adolescents.
13. The coping skills programme, life -skills education, supporting RKSK programme of GOI might be instrumental in supporting the adolescent's mental health.
14. It is important to generate digital literacy and positive social media behaviour.
15. The entertainment media and platforms need to take strict responsibilities of what they present and how it might influence the young mind, in terms of substance abuse, violence, beauty standards, etc.

Recently, WHO and UNICEF has released an Early Adolescent Skills for Emotions (EASE) to provide psychological help to adolescents afflicted by distress in communities exposed to adversity. The module comprises of seven group sessions for young adolescents and three for the adolescent care givers. It will aid in adolescent's ability to identify their feelings, improve stress management, increase behavioural activation and use problem solving methods (World Health Organization and the United Nations Children's & Fund (UNICEF), 2023). Addressing mental health issues of adolescents will support many UN SDGs as well.

Adolescent mental health is of significant public health importance and adolescence is a period to nurture the young minds with positive behaviours and habits that will determine their and nation's better future. The mental health of adolescents not only affects their immediate well-being but also has long-term implications for their adult lives and the overall health of communities. Addressing mental health concerns at this stage can prevent them from becoming more severe in adulthood. Investing in adolescent mental health can be a preventive measure against the development of mental health disorders in adulthood.

With this aim, the Edward and Cynthia Institute of Public Health has initiated "Brain Resilience Mission" as its flagship programme to break the stigma around adolescent mental health and provide the adequate information, safe space to communicate, and to create healthy and resilient adolescents and empowering them to contribute towards community cohesion, productivity, and the nation's development.

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