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# The Contributing Factors to Adolescent Depression

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Abstract

**Objective**: This paper reviews individual, familial, peer, and societal factors influencing adolescent depression in developed countries. **Background**: Depression usually onsets at adolescence and contributes to high DALYs. Since depression is treatable, efforts should be made to reduce its prevalence and effect. **Methods**: The research consisted of looking at literature relevant to the topic and age group and conducting interviews with experts who know about and have worked with adolescent depression. **Discussion**: Adolescents begins at the onset of puberty, allowing different biological factors such as genetics, stress of puberty, and cognitive changes to increase vulnerability to depression. Adolescents who had substance abuse problems and/or held stronger neuroticism personality trait were more susceptibility to depression. Unhealthy familial relations and peer relations was also linked to depression risk. Negative life event often predated depression onset. Living with a parent who had depression increased chances of depression for their offspring. The performance-driven society puts pressure on adolescents that when unable to cope or extrinsically motivated can increase risk of depression. There could be possible risks with social media in centralizing one depression definition, increasing comparing behaviors lowering self-esteem, and difficulty distinguishing true reality. Stigma and lack of adolescent-focused care can prevent adolescents from seeking and getting the help that they need. **Conclusion**: The paper looked at a few factors that influence depression. Different factors interact changing depression vulnerability. Possible next steps are looking at these factors and how to decrease the risk to improve adolescent depression prevalence.

*Keywords*: mental health, public health, depression, adolescent, human development, developmental psychology, behavioral psychology, cognitive psychology, social psychology, personality, risk factors, family, bullying, suicide, societal factors, performance

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# The Contributing Factors to Adolescent Depression

Health is “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization [WHO], 1948). Mental well-being is an aspect of health not as recognized as physical health. The World Health Organization (WHO) defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO, 2014). In mental health, there can be mental health illness. One mental illness is depression, “a common mental disorder, characterized by persistent sadness and a loss of interest in activities that you normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks” (WHO, 2017).

Depression is a big issue with 300 million people affected globally. It is a leading cause of disability and can sometimes lead to suicide. Luckily, depression is treatable. (WHO, 2018b). However, around 80% of those 6-18 years of age with a mental health disorder do not receive treatment (Coles et al., 2015). This is a big public health problem.

Adolescence is an important time to look at depression for it is a common time of onset. Adolescence is the time period between childhood and adulthood. It usually begins at the onset of puberty to legal adulthood. However, the period of adolescence is a bit grey for the earlier onset of puberty and the different legal definitions of adulthood across different communities (Costello, Erkanli, & Angold, 2011). However, this paper will go by WHO’s definition of adolescence which is the age group between 10-19 years (WHO, 2018a)

Most studies show that children depression is less than one percent, but the rate rises in adolescence with probabilities of depression ranging from 5-20% (Thapar et al., 2012). Another study says that “at least one in four adolescents experience symptoms of depression (United

Nations [UN], 2014). Adolescence is the time where depression first shows up (Hankin, 2006). In a meta-analysis looking at different papers about the prevalence rate from childhood to adolescents, there was an increase in depressive disorder for all studies reviewed (Costello et al., 2011). With the World Health Organization's World Mental Health Survey Initiative finding that "prevalence is consistently low until the early teens, at which time a roughly linear increase begins that continues through late middle age" among mood disorders, of which also includes depression (Kessler et al., 2007). Between the ages of 15 and 18 "the prevalence rates of depressive disorders increase from 3% to 18%" (Gamez-Guadix, Orue, Smith, & Calvete 2012).

Not only is the first occurrence important but having a depression episode in adolescence has a 60-90% of remittance in a year and can also hint at future mental health problems in adulthood such as "anxiety disorders, substance-related disorders, and bipolar disorder, as well as suicidal behavior, unemployment" as well as adult depression (Thapar et al., 2012; Hankin, 2006). Depression affects many different areas of life: "It is a prototypical multifactorial disorder that profoundly affects individuals' emotions, thoughts, sense of self, behaviors, interpersonal relations, physical functioning, biological processes, work productivity, and overall life satisfaction" (Hankin, 2006).

There are many ways that depression affects one's life. Of these, one of the most detrimental is through suicide. Of 15-29-year-olds, suicide is the second highest cause of death (WHO, 2018b). Number three of the UN Sustainable Development Goals (SDGs) is "good health and well-being". Within this category non-communicable disease and mental health is a focus. They state that "mental disorders such as depression can lead to suicide. Nearly 800,000 suicides occurred worldwide in 2015" (UN, 2017). Addressing adolescent depression will also help to address the sustainable development goal of "good health and well-being".

With the onset of depression, risk of reoccurrence, and risk of suicide, adolescent depression is an important time "as many mental disorders begin in childhood or adolescents, interventions aimed at early detection and treatment might help reduce the persistence or severity of primary disorders and prevent the subsequent onset of secondary disorders" (Kessler et al., 2007). However, "nearly 80% of youth ages 6-18 years with a mental disorder fail to receive treatment represents an important public health priority" (Coles et al., 2015).

Another way of measuring the impact an illness has on one's life is through disability-adjusted life years (DALYs). The main causes of DALYs for 15-19-year olds, for both male and female is unipolar depressive disorder (UN, 2014). Therefore, adolescent depression is an important topic to address. This paper will investigate some of the different risk factors that impact adolescent depression from the individual, familial, peer, and societal levels. There are many different factors that play into adolescent depression and this paper cannot be comprehensive; it will look into a few of these factors. Due to the more limited literature of depression in developing countries, this paper will focus on adolescent depression causes in developed countries.

## Formation of Research Question

Originally the research question was "What are the factors contributing to the increasing adolescent depression rates especially among the Organisation for Economic Cooperation and Development (OECD) countries?"

As I conducted interviews, I realized the inaccuracy of my question. As Dr. Dagmar mentioned, the rates of depression may not be more frequent, it may just be more visibility and awareness (P. Dagmar, personal communication, April 18, 2018). In an epidemiologic meta-analysis of 26 studies with participants 18 years old and younger found "no evidence for an

increase prevalence of child or adolescent depression over the past 30 years" (Costello et al., 2006). Rather they suggest that "public perception of an 'epidemic' may arise from heightened awareness of a disorder that was long under-diagnosed by clinicians" (Costello et al., 2006). The prevalence may be the same as in the past, it is unsure. More data collecting and awareness and more people coming in to get help may have contributed to assumption of a high rate of depression, but this may just be the normal rate. Dr. Eytan mentioned how before depression in adolescents was under-diagnosed and under-recognized and frequently attributed to normal adolescent crisis. He does not think it is over-diagnosed, rather he still thinks that in most settings it is under-diagnosed as there are problems of identifying such as not being able to link the somatic problems (A. Eytan, personal communication, April 4, 2018).

I also realized that OECD countries encompassed many different countries and the situation may be different in each country. It seemed too big of a category. Part of my reason for picking OECD countries was my hypothesis that there might have been other factors in developed countries that have changed that might have been contributing more to depression including academic pressure, internet usage, and overdiagnosis[1]. So, I generalized it to developed countries including countries such as United States, Switzerland, Canada, Germany, etc. where literature lead me. Therefore, my research question evolved to the following: What are some of the risk factors for adolescent depression in developed countries?

## Background

A common way to diagnosis depression is using the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) published by the American Psychological Association (APA). The DSM-V classifies major depressive order by processing five or more of the following symptoms that is abnormal from normal function for a duration of 2 weeks:

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (**Note:** In children and adolescents, can be irritable mood.)
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (**Note:** In children, consider failure to make expected weight gain.)
4. Insomnia or hypersomnia nearly every day.
5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
6. Fatigue or loss of energy nearly every day.
7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
10. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
11. The episode is not attributable to the physiological effects of a substance or another medical condition.
12. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.
13. There has never been a manic episode or a hypomanic episode (American Psychological Association [APA], 2013).

The DSM-V mentions certain differences between adult symptoms and children symptoms. Children are more likely to display irritability than sadness. They may have difficulty making the normal weight of their age and may have problems with hypersomnia and hyperphagia. The DSM-V also mentions how “major depressive disorder may first appear at any age, but the likelihood of onset increases markedly with puberty” (APA, 2013).

Some problems with the DSM-V is that it was made for the use in America and may not display all the symptoms that may appear differently in different cultures. The DSM-V tries to address this by adding a note on culture in the appendix. Dr. Ariel Eytan displayed this concern

stating, “symptoms of depression vary from one culture to another, from one context to another, and it is very important to take the context into consideration…the DSM-V is America’s view on mental health and disorders” (A. Eytan, personal communication, April 4, 2018).

Another classification of mental disorders is the International List of Causes of Death (ICD) published by the World Health Organization (WHO). The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines says that “in typical depressive episodes…the individual usually suffers from depressed mood, loss of interest and enjoyment, and reduced energy leading to increased fatigability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are: (a) reduced concentration and attention; (b) reduced self-esteem and self-confidence; (c) ideas of guilt and unworthiness (even in a mild type of episode); (d) bleak and pessimistic views of the future; (e) ideas or acts of self-harm or suicide; (f) disturbed sleep (g) diminished appetite” (WHO, 2015b). Of these “depressed mood, loss of interest and enjoyment, and increased fatigability are usually regarded as the most typical symptoms of depression, and at least two of these, plus at least two of the other symptoms described [a-g] should be present for a definite diagnosis” (WHO, 2015b).

When speaking with Dr. Christoph Rutishauser on the difficulties of diagnosing adolescent depression and some differences, he says that adolescents can have huge mood swings or express anger as a core symptom. They are also less likely to state that they are hopeless and sad compared to adults with depression. This can be a reason for underdiagnosing adolescent depression (C. Rutishauser, personal communication, April 16, 2018). Dr. Ariel Eytan says it can be hard to diagnose depression in adolescence because it is sometimes hard to distinguish between normal adolescent processes and depression. He also stated some different symptoms such as acting out like they are have behavioral problems when they actually have

depression. Adolescents are also more likely to engage in self-destructive behaviors, have increased sleep, increased appetite, and are more likely to have substance abuse (A. Eytan, personal communication, April 4, 2018). So, when looking at adolescent depression, it is important to note the differences in how it appears and sometimes the difficulties in diagnosis because of these different symptoms and distinguishing it from typical adolescent process.

## Research Methodology

To gain an understanding of adolescent depression factors, this study looked at secondary sources including peer-reviewed scientific articles, books, and non-governmental organization's reports. These sources were found by searching key words and phrases such as "adolescent," "adolescence," "depression," "causes," and "factors". This helped provide a basis and background of the current information available and the thoughts on the subject. The articles were chosen based on the relevancy to the topic. Special focus was placed on adolescent age group and depression of other mental illnesses. After looking at articles, some categories were recognized, and those categories were more explored with narrower literature review searches (e.g. parental relationship with adolescents led to searches such as "parental relationship in role of adolescent depression").

Then, to gain more information on the current views, primary data was collected in the form of interviews. Interviewees were selected through their experience and knowledge of adolescent depression and mental health issues. After searching nearby experts chosen based on position, expertise, and experience were contacted via email requesting an interview. Some were able to give other references, whom after searching their background were also contacted.

Françoise Cornaz, a former psychologist, agreed to do an interview where she shared her views on stigma and help-seeking behaviors. I also interviewed Dr. Ariel Eytan from Hôpitaux

Universitaires de Genève (HUG), an expert in cultural psychiatry and international mental health. Next, Dr. Christoph Rutishauser from Zurich Children's Hospital a specialist in adolescent psychiatry shared his knowledge and insight on the subject. Dr. Dagmar Pauli, an expert in children and adolescent psychiatry heading the children and adolescent clinic for child and adolescent psychiatry and psychotherapy and experience working with adolescents with depression, interacted in another interview.

## Discussion

"Adolescence is a transition of major psycho, social changes, and also biological changes" (C. Rutishauser, personal communication, April 16, 2018). Adolescence is a time of big changes as one moves from childhood to adulthood. Puberty usually starts to begin, and the body starts to change. In some developed countries there can also be a transition from primary school to secondary school which is a transition and adjustment. Many factors are changing and impacts adolescent depression. This paper will explore some of these factors.

### Individual

#### Biological.

##### *Puberty.*

Adolescence begins with puberty. As the body and hormones change, the developmental transition can add emotional distress causing stress (Hankin, 2006). This stress can add up and make an adolescent more vulnerable to depression. Other factors such as "inherited risks, developmental factors, sex hormones, and psychosocial adversity interact to increase risk through hormonal factors and associated perturbed neural pathways" (Thapar et al., 2012).

### *Cognitive*

Adolescents begin the journey to cognitive maturity. Their brains are developing, and brain circuits are changing to have more social understanding and self-awareness (Thapar et al., 2012). Some cognitive vulnerabilities related to depression is "(1) negative inferential styles about causes, consequences, and the self, (2) dysfunctional attitudes, (3) the tendency to ruminate in response to depressed mood, and (4) self-criticism" (Hankin, 2006). These new cognitive changes can contribute to adolescents becoming more vulnerable to depression.

Dr. Rutishauser responds that the cognitive changes during adolescence is an important change that could contribute to depression saying "the adolescent learns how to use his cognitive capacity in a different way for example, abstract thinking, he learns to question what he sees, what he hears, and what he feels. And I do think that with all these huge changes in adolescents, many adolescents are somewhat overwhelmed fearing that they cannot cope with all the expectations, that either they have of themselves or other people have of these adolescents" (C. Rutishauser, personal communication, April 16, 2018).

### ***Stress.***

Stress plays a big role in adolescent depression. Stress can be defined as "environmental events or chronic conditions that objectively threaten the physical and/or psychological health or well-being of individuals" (Hankin, 2006). Stress and depression is bi-directional meaning stress can result in depression and depression can result in stress (Hankin, 2006). Another study said that "stress is both a risk and causal factor in depression while relatively low social self-efficacy moderately increases risk" (McFarlane et al., 1994). Stress can occur from negative life events or negative relationships (Hankin, 2006; Thapar et al., 2012). Stress is especially related to the first

onset of depression (Thapar et al., 2012). Stress is an important component to depression with other risk factors contributing to stress and that stress playing into depression onset.

**Personality**

The personality trait: neuroticism, can contribute to a person experiencing more stress and "serve as a vulnerability to developing depression among children and adolescents" (Hankin, 2006). Neuroticism is defined with the traits: "irritability, anger, sadness, anxiety, worry, hostility, self-consciousness, and vulnerability" (Lahey, 2009). In a study looking at adolescents and seeing the relationship between neuroticism, depression, and anxiety disorders through structured clinical interviews and questionnaires, they found that "there was a significant change of neuroticism values from adolescence to young adulthood" and that "over 20% of our participants showed a neuroticism development which was associated with adverse outcomes such as negatively toned emotional experience and heightened risk to suffer from depressive and anxiety disorders in young adulthood" (Aldinger et al., 2014). Neuroticism has been found to be associated with depression. In a longitudinal study with twins, they found a 90-100% increase in women and an 85% increase in men for the probability of getting major depression for each standard deviation difference in neuroticism scores (Lahey, 2009). Neuroticism is associated with depression and with the increase in neuroticism in adolescents, it is an increased risk factor that plays into adolescent depression.

Other personality traits and characteristics such as reassurance seeking behaviors, insecure attachment, and interpersonal dependency are linked with higher depression symptoms and higher likelihood of depressive episodes (Hankin, 2006).

### Substance Abuse

A review on substance abuse and depression in adolescents found that "there is a strong relation between the psychoactive substance use and depression in adolescence" (Gomes et al., 2012). In a study with 98 adolescents in psychiatric hospitals using the Children's Depression Inventory and the Rutgers Alcohol Problem-Drinking Index, researchers found "a positive association between depression levels and problems with alcohol in adolescents, indicating that youth who both suffer from depression and abuse alcohol may be at higher risk for a suicide attempt" with heavier drinkers reporting more depressive symptoms (Danielson, Overholser, & Butt, 2003). Substance abuse is something to look out for among adolescence for it can have a negative impact on depressive symptoms.

### Negative Life Event

One must already have some initial vulnerability for negative life events to cause depression, but "almost all individuals with a depressive disorder will have encountered at least one significant negative life event in the month prior to the onset of depression" (Hankin, 2006). Although not everyone that experiences a negative life event gets depression, those that are depressed probably have experienced a negative life event prior to onset of their depression. Research estimates this percentage to be around 50. Stressful life events such as trauma, assault, death, unemployment, relational problems or even stressors that slowly add up can result in depression (UN, 2014). Sometimes the things in the past start to impact an adolescent and their vulnerability to depression.

## Family

Adolescence is a time of high parent-child conflicts and family-related stress. It is important for adolescents to have a good relationship with their parents to decrease the chances

of depression. Adolescence is a time where more parent-child conflicts arise as adolescents seek more independence and the parents work to find compatible agreements. It is also a time of high family-related stress which may be caused by family adversity, poor quality family relationships, maladaptive parenting behaviors, conflicts of desire for autonomy. These disruptions in family functioning can result in adolescent depression and/or can occur after an adolescent in the family goes through depression (Abaied & Rudolph, 2014). Adolescents that perceive good support from parents are less likely to have depression (McFarlane et al., 1994). Therefore, having strong emotional processes and interpersonal relationships is important in adolescence.

Dr. Rutishauser said, “adolescents need someone to relate to” emphasizing the need and the importance of having an adult figure to relate to. It does not necessarily have to be a parent, it can also be people like a school teacher or a social worker. Sometimes, children grow up in dysfunctional families, but a good adult mentor can help create resilience to grow up normal (C. Rutishauser, personal communication, April 16, 2018). Dr. Dagmar also highlights the importance of parental support saying that although adolescence is a common time where they draw away from parents, it is important that the parents keep in touch. Parents should guide their adolescents and not leave them alone, but at the same time not putting on too much pressure (P. Dagmar, personal communication, April 18, 2018). Parents need to be there for their adolescents and find a balance of how they can best support them through this transition.

**Parental Mental Health & Genetics**

The mental health of the parents plays a significant factor in depression diagnosis of adolescents (Chrisman & Richardson, 2013). Of the parents who have depression, their children are at three to four times higher risk for depression (Thapar et al., 2012). Having a parent who has depression is an established risk factor and “rates of adult depression have also risen

considerably over time, and this might have contributed to trends in adolescent emotional problems" (Collishaw, 2015). Some have gone as far to say that "the strongest risk factors for depression in adolescents are a family history of depression and exposure to psychosocial stress" (Thapar et al., 2012). Regarding genetic susceptibility, a twin study found that "depressive symptoms are heritable starting in adolescence (after age 11)" (Hankin, 2006). Adolescence is when depression gene disposition starts to matter and play into effect.

**Peers**

Interaction with peers changes from childhood to adolescence. According to Dr. Rutishauser. adolescents are more self-critical about themselves and their peers. They value how others talk, appear, and other aspects that were not as important in childhood. Some of these adolescents are oversensitive of what other peers think of them, causing insecurity that can potentially contribute to adolescent depression (C. Rutishauser, personal communication, April 16, 2018). Those depressed were more likely to report "lower levels of satisfaction with their social networks" (Hankin, 2006). Therefore, adolescent peer interaction plays a part in depression and is important to examine the challenges of peer interaction.

**Bullying**

Bullying is defined as "intentionally harmful aggressive behavior that is repetitive and involves an imbalance of power between perpetrator and affected person" (Barzilay et al., 2017). There are different types of bullying including physical, verbal and relational. Relational bullying is more common among girls, whereas physical and verbal bullying is more common among boys. Bullying is an important topic related to adolescent depression because there are strong associations between bullying victimization and suicide ideation and attempts, some of which were preceded by depression (Barzilay et al., 2017).

In a study taking place with 10 European Union countries part of the Saving and Empowering Young Lives in Europe Study. The students (majority 15 years old) did a self-report questionnaire to measure "victimization types, depression, anxiety, parental and peer support, and suicide ideation and attempts" (Barzilay et al., 2017). Results found that “physical victimization was associated with suicide ideation and relational victimization was associated with suicide attempts…verbal victimization was associated with suicide ideation among adolescents with depression who perceived low parental support. Similarly, low peer support increased the associations between verbal victimization and suicide ideation. Verbal victimization was associated with suicide attempts among adolescents with anxiety who perceived low parental support” (Barzilay et al., 2017). Being a victim of bullying has associations with depression.

***Cyberbullying***

Another form of bullying is cyber-bullying. It is a common phenomenon with around 20-40% of young people being victims of cyberbullying. In one study conducted in Spain with adolescents between 13 and 17 years of age from both public and private schools, it looked at cyber-bullying victimization, depression, substance use, and problematic internet use in time one and see the what each group had in time two. For depression in time one, in time two the participants could have depression and cyberbullying victimization. In this study there was no association with depression and problematic internet use, but victimization could also lead to problematic internet use or substance abuse and depression (Gamez-Guadix et al., 2012). Although cyberbullying is a new type of bullying there was still peer pressure and mobbing in the past, and according to Dr. Dagmar, she does not perceive that much social interaction has changed from past generations (P. Dagmar, personal interview, April 18, 2018).

**Suicide**

There is this phenomenon during adolescent when if one of the members of a peer group commits suicide, there is a higher risk for the others in the group to also commit suicide. Dr. Eytan says that the reason for this is due to the close links among the members in the group. They feel like they can feel what other people in the group feels. When one of the member commits suicide, they are more likely to also commit (A. Eytan, personal communication, April 4, 2018).

Durkheim's Theory, a sociology theory, says that there are "four sociological 'ideal-types' of suicide: (1) egoistic suicide, predicated on too little integration; (2) altruistic suicide, predicted on too much integration; (3) anomic suicide, predicted on too little regulation, and (4) fatalistic suicide, predicated on too much regulation" (Mueller & Abrutyn, 2016). The suicide that Dr. Eytan describes would most likely fall under altruistic suicide because the friend group is too integrated. Knowing that they are at risk, more focus and available help should be offered to the friends of the one that passed away due to suicide. Dr. Eytan offers another thought to adolescent suicide saying that "it's a normal to think of suicide to think that this is a possibility…to have thought about suicide it's unavoidable. Probably it is also useful. Because if you think about suicide to some point it gives value to being alive. You have some conscious of the fact that life could end… probably those who do not go through this process, they don't see…death as a real thing" and "you have to really integrate that death is real to not commit suicide" (A. Eytan, personal communication, April 4, 2018). Adolescents may not have gone through the mental process of understanding death, which can be contributing to the suicide rates.

Another way that peers can influence suicide is if they do not effectively integrate other people. For "individuals who are socially isolated or feel they do not belong are much more vulnerable to suicide than are people who feel integrated into salient social groups" (Mueller & Abrutyn, 2016). Therefore, peer exclusion is another risk factor for adolescent depression.

## Societal

### Performance-Based

When I asked about some of the causes of adolescent depression, Dr. Rutishauser said that "we are highly performance-driven in countries such as the United States or many countries in Europe. And so, there is a pressure coming from the society as well" (C. Rutishauser, personal communication, April 16, 2018).

This is in lines with scientific views: "rising expectations can result in increased pressure to succeed in school, with the potential to have either positive or negative impacts on young peoples' learning, health and emotional well-being. Excessive pressure or stress may negatively impact students' academic performance and continued schooling, as well as their physical health, emotional well-being and health-related behaviours" (Klinger et al., 2015). The increased pressure in school is having detrimental impacts to health and this is also influencing depression symptoms and prevalence among adolescents.

When looking into the literature, a sociological case study looked at an upper-middle-class suburban neighborhood. The researchers described the community as "home to a coherent, shared set of cultural directives that regulate who youths and parents feel they should be. These directives emphasize perfectionism through having the perfect family, being the perfect Poplar Grove kid and especially through academic achievement" (Mueller & Abrutyn, 2016). (Poplar Grove was the pseudonym of the town). This is line with what Dr. Rutishauser said that the

society as well as many parents nowadays have an expectation to be successful because of so many resources being available to help them achieve it. In other words, if an adolescent is not successful, it is often perceived as his own fault, putting further pressure on adolescents to perform well (C. Rutishauser, personal communication, April 16, 2018).

Dr. Dagmar also mentions how in the last 10-15 years, the school pressure, the pressure of having good grades, attendance, is increasing because they have more worries about the future. They have the mindset that they need the good grades to get a good education and a good job (P. Dagmar, personal communication, April 18, 2018).

In a study looking at extrinsic and intrinsic motivation of 10th graders in organized activities in affluent communities and how the motivation affects depressive symptoms, it found that those with more intrinsic values such as doing the activities "for fun" were more likely to have more psychosocial benefits than those with extrinsically motivated reasons such as "for parents" or "for future" which was more related with depressive symptoms (Randall, Travers, Shapiro, & Bohnert, 2016). So, although the amount of organized activity may play a factor, it is important to pay attention to how they view the organized activity, the adolescent's mentality, to see how it will impact their well-being. It is more about the perceived pressure rather than the real pressure that plays a more important role.

In a study of "cross-national trends in perceived school pressure by gender and age from 1994 to 2010," looking at different times 1993/1994, 1997/1998, 2001/2002, 2005/2006, and 2009/2010 at age groups 11, 13, and 15-years old that with age and pressure increased linearly. Of the regions studied, North America had the highest perceived levels of school pressure while the Germanic countries had the lowest (Klinger et al., 2015). The difference in school pressure could be because of assessment. There is more emphasis on assessment in North America and

Great Britain where there was higher perceived pressure (Klinger et al., 2015). When the Programme for International Student Assessment (PISA) results came out and Germany did worse than anticipated, their perceived pressure rose from 2002 to 2006. This may be in part due to increased pressure with new educational policies and practices put on teachers to do well on PISA and therefore possibly more pressure transferred onto the students. This study found that with age, also came more perceived pressure. The study hypothesized that this could be because as student progress through their academic life, they are faced with more tests and decisions and preparation for the future. The resulting trends could also suggest that countries that have a more competitive entrance into post-secondary education have higher perceived school pressure (Klinger et al., 2015).

Perceived pressure is a risk factor for depression in adolescents and with a more globalized society with an ever-growing population, jobs can become more competitive and uncertain, and performance may play a bigger factor into success. This growing change is harming the adolescents, but it is also important for them to recognize this problem and seek to reshape their thinking into intrinsic values to help mediate the harmful effects the perceived pressure can have.

**Social Media**

When asked about technology, Dr. Eytan mentioned how there are both positive and negative effects like with everything, and with mental health and technology he thinks there are more positive consequences. If there were to be negatives that could be risk factors for depression they would be internet addiction and confusion about reality. He gives the example of Facebook friends and how adolescents need to be able to distinguish their real-life friends from friends on Facebook who may be more like acquaintances. But, when some people realize this

they can end up quite lonely. It is a risk factor when adolescents start preferring virtual context over real context (A. Eytan, personal communication, April 4, 2018).

Another way media has impacted adolescents is through the new social media pressure. There are more people with platforms such as Instagram where adolescents, especially adolescent girls, can find people and photos to compare themselves to. This can result in body shape issues and overall it seems that self-worth is decreasing (P. Dagmar, personal communication, April 18, 2018).

Media and globalization has also been defining what it means to have depression and what symptoms are related to depression. As mentioned earlier, symptoms can appear differently based on the culture, however, with more media on depression and in more western societies, the symptoms for depression is getting more uniform across different cultures and communities, especially self-harm and suicidal ideation. So overall, suicidal ideation and self-harm has been increasing among adolescents which is a public health concern (P. Dagmar, personal communication, April 18, 2018).

**Stigma**

Dr. Dagmar says that “mental health stigma is still a big issue” (P. Dagmar, personal interview, April 18, 2018). People with mental health problems face stereotypes and prejudice due to the wrong perceptions and information of mental health problems. This causes an increased chance for discrimination in job, housing, and healthcare. This is important to address because these perceptions can lead to barriers to care and unfair treatment to the mentally ill (Corrigan & Watson, 2002). Stigma is associated with negative psychological well-being, economic outcomes, lower self-esteem, barrier to treatment, and barrier to adhering to treatment (Busby Grant et al., 2016). Therefore, stigma must be addressed for “stigma is the main cause of

discrimination and exclusion: it affects self-esteem, disrupts relationships, and limits opportunities for socialization and independent living, including access to stable housing and employment" (UN, 2014).

### Lack of Adolescent-Focused Systems

Adolescent health is an area overall neglected in the health system. Adolescents have their own needs that a health system needs to cater to such as having easy access mindful of school hours and location. Adolescents value privacy and participation in their own health. As of now, however, "services for adolescents are highly fragmented, poorly coordinated and uneven in quality" and they "do not get sufficient attention in primary care" and "mental health disorders…are often neglected" (WHO, 2015a). Adolescents report feeling "lack of respect and confidentiality, fear of stigma and discrimination, and imposition of the moral values of health-care providers" that can be stopping them from getting the health care that they need (WHO, 2015a). The lack of adolescent-focused system prevents adolescents in seeking and getting the proper care they need including early detection, diagnosis, and treatment of depression.

## Limitations of This Study

This study only looked at a couple of studies and factors with varying locations and testing methods. Many were from meta-analysis studies and the actual studies were not always referenced. Some of the studies and sources were a bit dated. Not all the findings of the scientific articles could necessary apply to all developed countries. Regarding the interviews there was not much variety as much were practicing psychiatrists; there was not as much diversity in profession or sectors. Some of the questions may have been leading towards a certain response resulting in wording bias, such as questions: "How as globalization impacted adolescent

depression" maybe leading to the idea that globalization has made an impact on adolescent depression.

## Recommendations

There needs to be more of adolescent-focused care available and catering to adolescent needs. Although not all these risk factors are preventable, here are some recommendations to help lessen the risks and help adolescent depression.

When speaking with experts, they mentioned how there needed to be a more community-based and school-based approach to addressing these problems.

Dr. Dagmar said that school systems are very important for early detection and guiding those who need extra help. Dr. Dagmar is working on a campaign in the Canton of Zurich in Switzerland where they are promoting early detection, primary intervention, and speaking out about problems. They have been going to schools and teaching teachers on the importance of primary intervention, how to detect children struggling, and how to create a good atmosphere in their classes so there is not too much pressure on children (P. Dagmar, personal interview, April 18, 2018). Dr. Rutishauser says that it is important to teach them more than performing well in school, but the importance and value of other activities such as cultivating peer relations. Addressing the performance-driven society factor, it is also important to teach adolescents how to cope with the pressures and expectations. Adolescents should learn what to do in distressing moments, learn relaxation techniques, and breathing relaxation. These coping mechanisms should be taught in regular school activities so it there is not a "weirdness" attached to them, but it is normalized, and students can feel comfortable practicing them (C. Rutishauser, personal communication, April 16, 2018).

Another part of the campaign that Dr. Dagmar is a part of is lowering mental health stigma by making mental health more visible to the public through media. The campaign promotes talking to others and the normalcy of having psychological problems and getting psychological help (P. Dagmar, personal interview, April 18, 2018). Things have been getting better. Dr. Cornaz says that it is getting better and better as there is more education about getting help, the new generation of parents are more willing to get help for their children (F. Cornaz, personal communication, March 27, 2018).

It is important that adolescents have a healthy relationship with parents. Luckily, there has been a shift where now more parents join their child in treatment (F. Cornaz, personal communication, March 27, 2018). This can help address problems that adolescents may have due to parental relationships or family circumstances. Adolescent-parent therapy may help address some of the factors that impacts adolescent depression.

Regarding peer suicidal ideations when a friend in a peer group commits suicide, and others in the group are more likely to also commit suicide, since this is a known risk, it is important to talk, support, and have more resources readily available to those in the peer group (A. Eytan, personal communication, April 4, 2018).

Although not a comprehensive list of recommendations addressing all the factors stated, it does give an idea of some next steps that society can take to address adolescent depression and help prevent and decrease the severity of the problem.

## Conclusion

Depression affects millions worldwide and is the largest contributor of disability for adolescents. Depression usually onsets at adolescence and is an optimal time for early detection

and intervention as there is a high probability for consequential reoccurrences. Depression is often marked by sadness, loss of pleasure.

Adolescence usually begins around the time puberty begins. With puberty comes different biological and cognitive changes that can increase stress. This accumulation of stress of stress can result in increased vulnerability for depression. A personality trait associated with depression is neuroticism which is linked with increased worry and anxiety. Adolescents that have substance abuse problems are more vulnerable to depression and its effects. Before depression occurs, it is common that one will experience a negative life event before onset. As one becomes an adolescent, relationships start to change. With parents, there tends to be more disputes as adolescents and parents try to agree on the level of freedom and autonomy of the adolescent. This can be stressful for adolescents and an unsupportive parental relationship can increase their risk of depression. Relationships among peers also start to change as adolescents become more critical of others and pay attention to new factors that were not as important in childhood. Having supportive, inclusive friend groups is important for mental health and can help decrease risk of bullying and suicide. There has been an increase in pressure as society has moved to a more performance-based society which negatively impacts adolescent's health and increases chance of depression as adolescents do not know how to deal with these new pressures and get overwhelmed. Social media has connected the world and offers an opportunity to compare to more people and share ideas of what depression which is resulting in more suicidal ideation and self-harm. Stigma and non-catered adolescent health services prevent adolescents from seeking the help that they need.

There are many different factors that play into adolescent depression and not just one can be pointed to and focused on to solve the problem, instead it is an interaction of these different

factors that may increase or impact the vulnerability of someone getting depression. Even if risk factors are present, there is still chances that they do not get depression at all for there is the factor of resilience and other factors that help mediate to have healthier mental health. The factors mentioned in this paper is no ways comprehensive, but it offers a glimpse into what may be impacting adolescent depression so more areas for effective interventions can be identified, such as attention to familial relationships and interventions in school for easy access and catering to adolescent needs. Possible next steps are to identify effective interventions to lower the risk of depression of adolescents based on these factors.

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## Footnotes

[1]Little literature supports the idea of overdiagnosis. According to a study looking at epidemiological studies "most reviewed studies suggest that misdiagnosis does occur; however, only one study was able to examine overdiagnosis in child and adolescent mental disorders from a methodological point-of-view. This study found significant evidence of overdiagnosis of attention-deficit/hyperactivity disorder" (Merten, Cwik, Margraf, & Schneider, 2017). Therefore, it is hard to make the case for overdiagnosis. Dr. Eytan also does not think it is over-diagnosed, rather he still thinks that in most settings it is under-diagnosed as there are problems of identifying such as not being able to link the somatic problems (A. Eytan, personal communication, April 4, 2018). Dr. Rutishauser also spoke of how misdiagnosis happens, but not really overdiagnosis (C. Rutishauser, personal communication, April 16, 2018).

## Interview Information

### Interview 1

Interview was conducted with a retired psychologist that worked with children 3-18 years old and their parents in Nyon and Geneve. She worked primarily with speech therapy, and the topic of discussion mostly circulated around mental health stigma, changing perceptions, and help-seeking behaviors mostly in Switzerland, although she said that Switzerland is much like Europe in terms of these topics.

The interview took place at a nearby café in Nyon on 27 March 2018 at 14h00. It was a casual and fast meet-up and an interesting subject. The questions were altered to go to a topic that we were both interested in talking about.

### Interview 2

Interview was conducted with Dr. Ariel Eytan who has a FMH Specialist Title in Psychitary and Psychotherapy on 4 April 2018. He works at the Geneva University Hospitals (HUG) and teaches at the Faculty of Medicine and Associate Medical Assistant at HUG. He specializes in transcultural validity of psychiatric diagnoses, international mental health, cultural psychiatry, and mental disorders in prison. The interview took place in a conference room at HUG-Belle-Idee and centered around topics of differences between adolescent and adult depression, importance of considering culture when diagnosing and treating depression.

### Interview 3

Interview took place with Dr. Christoph Rutishauser in his office in Universitats Kinderspital Zürich/Children’s Hospital Zurich on 16 April 2018. He is the president of the

Swiss Society for Adolescent Health (SGGA) and is an adolescent psychiatrist. The interview was very informative and engaging centering around topics such as difficulty diagnosing adolescent depression, performance-driven society, and pressure among other topics.

Interview 4

Interview took place with Dr. Dagmar Pauli on 18 April 2018 over the phone. She is Deputy Director for Child and Adolescent Psychiatry and Psychotherapy. She specializes with eating disorders but has also worked with depression in adolescents. The interview centered around topics such as media effects, stigma, and pressure.