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SUICIDALITY IN YOUNGERS: AN OBSERVATIONAL STUDY IN OUTPATIENT UNIT

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SUMMARY

Suicidality (meaning ideation, self-harm and attempt to suicide) are major public health problems in adolescence and represent a worldwide public health concern. Non-suicidal self-injury (NSSI), often simply called self-injury, is the act of harming your own body on purpose, for example by cutting or burning yourself. NNSI is a common mental health threat among adolescents and it's usually not meant as a suicide attempt. Unfortunately, suicide is the second most common cause of death in young people worldwide and represents a public health problem.

For this reason, we analyzed retrospective data from patients admitted in the Psychiatric Hospital from July 1st 2023 to June 30th 2024 to identify clinical features, risk factors of suicidality by analyzing the assessment we administered at time of hospitalization: Patient Health Questionnaire (PHQ-9), Ask Suicide Questionnaire (ASQ), G.T. MSRS scale.

Within the 50 subjects of the sample, 30 patients attempt to suicide (60%); the large majority (90%) met the criteria for mixed state.

This study shows that there is a high prevalence of mixed states in the inpatient unit admission, which is demonstrated both from the prescription of mood stabilizers, and confirmed by the diagnosis of mixed states rated with the scale. The use of structured interview with patient and families add on assessment suicide risk scale are fundamental, in order to guide a tailored psychopharmacological treatment, and improve prognosis.

Key words: *suicidality – mixity - suicide scale - mixity scale*

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INTRODUCTION

The American Psychological Association defines suicidality as "the risk of suicide, usually indicated by suicidal ideation or intent, especially as evident in the presence of a well-elaborated suicidal plan". It can also be defined to include suicidal thoughts, plans, gestures, or attempts. Self-harms refer to intentional self-poisoning or self-injury, irrespective of type of motive or the extent of suicidal intent. According to the National Center of Health Statistics most recent data, suicide ranks as the 2nd leading cause of death among 15-34-year-olds. Overall, the Italian suicide rate is at the highest it has ever been in the last 50 years, with a major increase in youngers and elders (Istat database).

Adolescence is a stage in human life cycle covering the five to ten years after the onset of puberty until the onset of adulthood. The cut off for the end of the adolescence is variable. In our study we selected people from 15 to 25 years old (upper age limit 25).

Detecting risk factors (individual, relationship and culture) and underline protective strategies are very important in prevention programs. Prevention of self-harm and suicide needs both universal measures aimed at young people in general and targeted initiatives focused on high-risk groups. There is little evidence of effectiveness of either psychosocial or treatment, with particular controversy surrounding the usefulness of antidepressants.

There are currently no guidelines or protocols for managing suicidality. Everything is entrusted to the clinician, in particular the emergency psychiatrist, who must predict suicide, admitted to the hospital and control psychic symptoms. Psychiatrists need a roadmap to work good. The importance of an empathetic and supportive working group has made possible to design a working scheme that takes into consideration the patient and the therapeutic alliance.

SUBJECT AND METHODS

We analyzed retrospective data from patients admitted in the Psychiatric Hospital from July 1st 2023 to June 30th 2024 to identify clinical features, risk factors of suicidality. We analyzed the assessment scales we administered at time of hospitalization: Patient Health Questionnaire (PHQ-9), Ask-Suicide Questionnaire (ASQ), G.T. Mixed States Rating Scale (G.T. MSRS scale). We choose these scales because of their efficacy and lack of administration difficulties. Moreover they can be used in both adolescent and adult populations.

The sample is constituted of 50 adolescents (about 10% of 492 people admitted to the hospital).

The PHQ-9 objectifies and assesses degree of depression severity via questionnaire. Interpretation: Total scores of 5, 10, 15, and 20 represent cutpoints for mild, moderate, moderately severe and severe depression, respectively.

Table 1. Warning signs of suicide

I	Ideation	Talking of wanting to die, looking for ways to die, talking about death
S	Substance abuse	Increased or excessive substance use (alcohol or drugs)
P	Purposeless	No reason for living; no sense of purpose in life
A	Anxiety	Anxiety, agitation; unable to sleep
T	Trap	Feeling trapped – like there's no way out; resistance to help
H	Hoplessness	Hopelessness about the future
W	Withdrawal	Withdrawing from friends, family and society; sleeping all the time
A	Anger	Rage, uncontrolled anger; seeking revenge
R	Recklessness	Acting recklessly or engaging in risky activities, seemingly without thinking
M	Mood changes	Dramatic mood changes

The ASQ tool is a set of four brief suicide screening questions that takes 20 seconds to administer.

The G.T. Mixed States Rating Scale, or "G.T. MSRS", is a self-administered rating scale structured with 11 items (7 among them include also sub-items). The response to each question would be "YES" or "NO". A "YES" answer would score 1 (or 2 if the symptom scored on items 1-2-3-4-8-9-10-11 is present for 50% of the month), a "NO" answer would score zero. Scores can range from 0 to 19, with a higher score meaning a more severe mixed state presentation. If a patient is positive (meaning having a total score equal or more than 1) on the "G.T. MSRS", the result suggests a "generic" diagnosis for a mixed state in the bipolar spectrum, based on the Akiskal's or Tavormina's full-spectrum scheme (Akiskal & Pinto 1999, Tavormina & Agius 2007). Subsequently, the clinician will need to carefully make a correct sub-diagnosis of the sub-groups of mixed state. A Medium-light level of mixed state is defined with scores ranging from 2 to 6; a Medium level of mixed state is defined if the score is 7 to 12; a High level of mixed state is defined if the score ranges 13 to 19.

As pointed out above, the cut off for the end of the adolescence is variable. Some definitions start as early as 10 and end as late as 30. The World Health Organization definition officially designates an adolescent as someone between the ages of 10 and 19. In our study we select people from 15 to 25 years old, considering the change of social and living culture.

Patient admitted to the hospital received a structured interview to explore suicide ideation, based on Is Path Warm, an acronym utilized as a mnemonic device. It was created by the American Association of Suicidology to help counselors and the general public "remember the warning signs of suicide." (Table 1).

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The total sample included 50 subjects, with an age that ranged from 15 to 25 years old (mean 20, SD=5). Within the 50 subjects of the sample, 30 patients attempt to suicide (60%), of which 17 are female; the large majority (90%) met criteria for mixed state and used to abuse of psychotropic drugs. The most common is cannabis. Subjects that attempt suicide were grouped into 3 sub-groups based on the discharge diagnosis: schizophrenia-spectrum psychosis for 5 subjects (13.4%), affective disorder for 25 (86.6%), and "others" (which included adjustment disorders, obsessive compulsive disorder, substance abuse) for 0 (0%) (Figure 1).

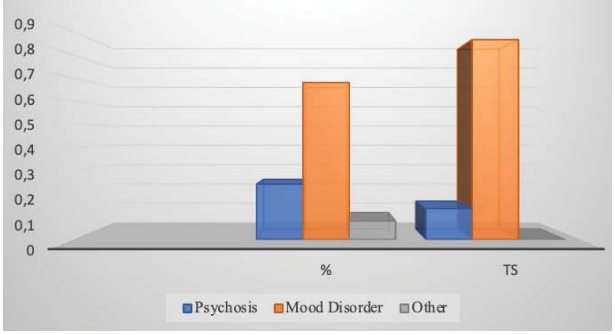

Figure 1. Prevalence of diagnosis in suicidality

In our sample, 45 patients (90%) met criteria for mixed state: 5 met criteria for low level of mixity, 35 for mild level of mixity, 5 for high level of mixity (Figure 2).

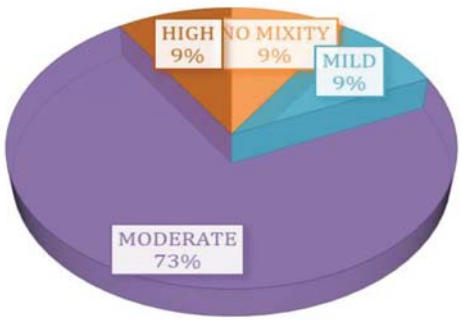

Figure 2. Level of mixity in adolescent admitted at hospital

Adolescent with moderate/severe mixity level, and so with high irritability more likely report serious suicidal ideation. For this reason, we prescribed mood stabilizers and Second Generation Antipsychotics (SGAs) as soon as possible (i.e. younger with poisoning or substance abuse with intoxication need wash-out).

DISCUSSION

World Health Organization declares that the prevalence of mental disorders is about to exceed that of cardiovascular pathologies: depression and other mental pathologies will be the most widespread in the world even before 2030 (WHO 2021). Numbers which in Italy are worth 4% of the gross domestic product between direct and indirect.

Considering that prevention is better than cure, the emergency concerns young people first and foremost: every year around the world there are around 46 thousand suicides among adolescents, while in just the three years of the pandemic there has been a 30% increase in diagnoses of mental disorders and depressive symptoms in the population have increased also increased fivefold in Italy, involving 1 in 3 people.

Over the period between 2007 and 2019, there was a significant increase in suicides among the group from 10 to 24 years of age (Hedegdar et al. 2021). During the beginning of the coronavirus disease 2019 pandemic (2020–2021), emergency department (ED) visits for suicide attempts further increased among adolescents 12 to 17 years of age: 50.6% higher in girls and 3.7% higher for boys (Yard et al. 2021. Sadly, in our clinical practice we observed an increase of suicide attempts correlated to an early psychiatric disease onset.

The "black struggle" threatens especially the most vulnerable and Unicef reminds us that globally over 1 in 7 adolescents between the ages of 10 and 19 lives with a diagnosed mental health problem. Most of the 800,000 people who die each year from suicide are young people, and suicide is the 4th leading cause of death among young people aged 15 to 19, with 46,000 teenagers committing suicide every year, more than one every 11 minutes.

Suicide attempts are more common in female adolescents, but deaths are more common in male adolescents, because male youth often use more lethal means (defenastrion or fire arms). Most common methods to attempt to suicide is overdose or poisoning of drugs.

In order to prevent suicidality, detecting risk factor is very important. Factors contributing to increased suicidality risk can be divided in individual, relational, social factors.

Individual factors

Most youth that plans or attempts suicide suffer from mental health disorder (mood disorder, schizophrenia or Post-Traumatic Stress Disorder).

Adolescents with physical, intellectual, and learning disabilities have higher risk of suicide compared with nonaffected adolescents, probably due to the impulse dyscontrol. They are also at higher risk for depression and anxiety, but often, in part because of difficulty with social communication, it can be easy to miss these diagnoses. Symptoms can manifest as changes in behavior, including increased irritability and aggression, or regression of functional skill level.

In particular we find a strong association with irritability and substance abuse. Adolescent substance use may increase the risk for suicidal behavior as a result of both acute effects, including impaired judgement and lower inhibitions, and long-term effects, including negative chronic neurocognitive/behavioral effects.

In our opinion lack of parental control, absence of rule and irritability contributed to grow individual with narcistic trait of personality at high risk of suicidality.

Relationship Factors

The absence of a significant emotional relationship underlying the personality represents a risk factor for suicidality. Children and adolescents with a history of adverse childhood experiences (ACEs), including those in foster care, physical, sexual, and emotional abuse; neglect; witnessing domestic violence; incarceration of parents; a family history of suicidal behaviors; had a higher likelihood of increased Suicidal Ideation and attempts during adulthood compared with those who were not exposed to ACEs (Meker et al. 2021, Duffee et al. 2021).

Another chapter of modern youngers' life is the relationship with social media. Social media represent a significant part of many teenagers' lives, because 97% of adolescents are using at least one social media platform. Social media has benefits to teenagers, because it provides outlets for young people to gain support, express themselves, and connect with others or to ask help "anonymously". There are also significant potential harms of social media usage, especially with regard to freely accessible and unfiltered social media. Social media use in teenagers can cause negative impacts by distracting them, disrupting sleep, allowing oversharing of personal information, and exposing them to harmful or inappropriate content, peer pressure, and predators and dangerous challenge.

Previous suicide attempts represent a risk factor too.

Social factor

A cozy family or friends' group is one of the more important protective factors.

Loss of relationship, lack of social support and sense of isolation, in fact, represent an important risk factor.

Cultural and religious beliefs, such as the belief that suicide is a noble resolution of a personal dilemma or, on the contrary, suicide is dangerous for the soul, influenced the suicidality.

Another important problem is the difficulty to access Mental health Services (stigma, lack of health practitioners) and the lack of healthcare, especially mental health and substance abuse treatment in youngers.

The exposure to others who have died by suicide (in real life or via the media and Internet) is another risk factor. In particular for internet influence, it was presumed to be correlated with the increase in news and media reports of his suicide during that time period. For instance, in the month after the release of the Netflix series "13 Reasons Why" in 2017, which depicts a teenager's death by suicide, suicide rates among adolescents 10 to 17 years of age increased by 29% in the United States (Bridge et al. 2021).

Stressor factor

In our study, we underline the role of mixity level on suicidality, with high prevalence in all young patient admitted to the hospital. The impulsiveness represents a risk factor not always predictable. The loss of relationship, a recent episode of violence, substance abuse could be "acute" stressor to increase impulse dyscontrol and suicidality.

In our study, we found a prevalence of substance abuse, in particular the use of cannabis, used as auto-medication for the "anxiety" by younger. The most common way to attempt to suicide is by drug poisoning. Psychotic patient attempt to suicide more frequently by jumping down.

Prevention of self-harm and suicide needs both universal measures aimed at young people in general and targeted initiatives focused on high-risk groups. There is little evidence of effectiveness of either psychosocial or pharmacological treatment, with particular controversy surrounding the usefulness of antidepressants, that increase irritability and suicide risk. In our experience the use of lithium in add on with SGAs (i.e aripiprazole, paliperidone) is very useful to control individual risk factors.

In order to prevent, it is very important (Simmon 2002, Cervone et al. 2022):

- To detect risk factor (individual, relationships and social).
- To detect stressors (end of important relationship, bereavement, bullying, social isolation).
- To interview the patient and explore his/her feeling, make a reality testing (attempt to suicide for attention).
- To detect protective factors (family, friends, internet, pair support).
- To evaluate the therapeutic alliances.
- To interview patients' family.
- To tailor the treatment (previous effective treatment).

CONCLUSION

Suicidality represent a major public health issue in youngers worldwide and there are many challenges to their management and prevention. Sad to relate, there are paucity of evidence for effective treatment interventions. In our opinion, the importance of development and assessment of new psychosocial (innovative intervention, adolescent help seeking, strategies to reduce stigma) and pharmacological intervention to reduce suicidality in youngers is the priority for mental health practioners. We observed that for Adolescents with high mixity level and, to a lesser extent, with moderate irritability only had a higher suicidal risk during adolescence compared with adolescents with low symptom levels. Early manifestation of chronic irritability during adolescent, especially when combined with depressive/anxious mood, may be associated with an elevated risk for adolescent suicidality. Substance abuse, adverse childhood experiences (ACEs), community and societal factors represent risk factors for suicidality and mood disorders. Despite the limits of the study (small sample, monocentric study and retrospective study), we underline the importance of an early and a tailored treatment in youngers, avoiding antidepressant in monotherapy and we focus on mixity level. To improve mental health care in adolescents in term of both access to and quality of services essential in order to detect mixed states in adolescent is very important in terms of prognosis, suicide risk, side effects and quality of life. Development and assessment of new media and telephone support help are essential. The reduction of stigma associated with mental health problem and help-seeking is also a major challenge.

Other studies are needed to design suicidality treatments guidelines.

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Contribution of individual authors:

Alba Cervone projects and designs the study, analyzed data and also wrote the study.

All the clinicians that work in the hospital, contribute to the study, visiting the patient.

Giuseppe Tavormina created and validated the Mixed State Rating Scale, and reviewed the study.

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