

The possibilities of suicide prevention in adolescents.

A holistic approach to protective and risk factors

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There is no other such complex physical, biological, somatic, mental, psychological, psychiatric, cultural, social and spiritual phenomenon and general public health problem, so much unexplained, meaningless, so tragic, painful, and unreasonable, so difficult, contradictory and mystified like suicide. In spite of the several already identified background factors, we do not and we can not know the real reasons behind suicide, because suicide is multi-causal, and can never be traced back to one single cause, but there are always many biological, psychological-psychiatric, historical, social and cultural factors involved in its development. However, the strongest suicide risk factor is an unrecognized and untreated mental disorder. Suicide among young people is one of the most serious public health problems. In Hungary 1395 young people lost their lives due to suicide in the 24> age group between 2000-2010, 1150 males and 245 females. According to epidemiological studies, 24.7% of children and adolescents suffer from some form of behaviour-, conduct- or other psychiatric disorders. Among adolescents (aged 15-24) suicide was the first leading cause of death in 2010. Despite great advances in the psychopharmacology and psychotherapy of mental disorders, suicides persist as a major cause of mortality, especially among the 15-24-year old population. Victims of suicide are not healthy individuals. They always suffer from psychiatric or mental, physical or somatic, cultural (social, historical, mythological) and spiritual disorders. The author tries to classify suicide protective and risk factors according to physical-biological, mental-psychological, cultural-social, and spiritual aspects. However, it must be remembered that these factors are not necessarily present in each and every case and may vary from one country to another, one person to another, depending on cultural, political, (spiritual) and economical features. Risk and protective factors can occur (1) at the physical or biological-somatic level which includes physical circumstances, genetics, health, and diseases; (2) at the mental or psychological level, which includes mental health, self-esteem, and ability to deal with difficult circumstances, manage emotions, or cope with stress; (3) at the cultural level or the broader life environment, and this includes social, political, environmental, and economic factors that contribute to available options and quality of life; (4) at the social level, which includes relationships and involvement with others such as family, friends, workmates, the wider community and the person's sense of belonging; (5) at the spiritual level, which includes faith, hope, charity, despair, salvation. Children and adolescents spend a lot of time at school, so teachers must be educated to notice any warning signs of suicide, but the majority of pedagogues not only do not know the most important mental and psychosomatic symptoms, but do not recognize them in children and do not know how to handle them either. Hopelessness is the most important spiritual risk factor. The Beck Hopelessness Scale is a tool for easy application in general practice. The author lists some important symptoms and signs that neither parents nor teachers are able to recognize and handle, and provides useful advice for prevention.

(Neuropsychopharmacol Hung 2013; 15(1): 27-39)

Keywords: suicide, adolescents, prevention, risk and protective factors, hopelessness, spirituality, holistic approach

Man is a special, individual, complicated, sophisticated, multidimensional, physical, biological, somatic, mental, psychological, cultural, social and spiritual being, therefore a holistic approach is very important (Kalmár, 2012b). Suicide is a passionately unreasonable aberration of human nature. It is a social (f)act that manifests in individual fate (Pethó, 1989). There is no other such complex physical, biological, somatic, mental, psychological, psychiatric, cultural, social and spiritual phenomenon and general public health problem, so unexplained, meaningless, tragic, painful, and unreasonable, so difficult, contradictory and mystified like suicide (Kalmár, 1990). It has attracted the attention of philosophers, theologians, priests, physicians, psychiatrists, sociologists, writers and artists over the centuries. It does not simply mean the loss of life, but causes a serious pain among family members, friends, with a shocking effect for the surroundings and imposes a huge economic burden on all of the society (Rihmer and Rutz, 2009). Losing a patient to suicide is probably our worst fear (McKeon, 2009).

Almost everything that can be written about suicide has already been written, yet we still do not know much about its reasons, nor about the ways to cease it. However, what seems to be sure is that suicide exists only at a certain level of human development, so it is an ability, or rather a characteristic of humans of that level. Society is predestined to produce a certain predefined number of voluntary deaths, although there is no such specific psychodynamic or personality structure that would compel one to commit suicide (Durkheim, 2000). In every organism lies the potential for perdition, and according to the psychosomatic approach, the environment – that is, the situation constituting the individual life territory – is able to bring about, hasten or delay this inevitable devastation. Who abandons himself mentally possesses no defense, and since the protective role of the body consequently also ceases to exist, the person is usually attacked by some severe organic illness in a short time (Földényi, 1992).

DEPRESSION AND SUICIDE IN ADOLESCENTS

In Hungary 513 920 (24.7%) children and adolescents suffer from some form of behaviour, conduct or other psychiatric disorders (2010). The number of registered patients at child and youth psychiatric dispensaries by gender in Hungary: 13 958 (2.72%); male: 9 212; female: 4 746. The number of active pediatric psychiatrists were 110 in 1999 and 47 in 2010 (Yearbooks of Health Statistics).

Among adolescents (ages 15-24), suicide was the first leading cause of death in 2010. Boys committed suicide 3.6 times more often in the 15-19 year old group than girls in 2000, and 2.2 times more often in 2010. Boys committed suicide 5.0 times more often in the 20-24 year old group than girls in 2000, and 5.9 times more often in 2010. Despite great advances in the psychopharmacology and psychotherapy of mental disorders, suicides persist as a major cause of mortality, especially among the 15-24-year old population.

The blunt fact is that nowadays there are no National Suicide Prevention and Positive Mental Health Promotion Programs, Complex Community-based Suicide Prevention Programs, a GP-based Suicide Prevention Educational Programs and mental health education in every school, college and university. Today the life has no real value.

According to epidemiological studies symptoms of clinical depression can be recognized in 3-5% of children and 7-12% of adolescents. International and Hungarian epidemiological data indicate that psychiatric disorders and psychosomatic illnesses are endemic, and their frequency is expected to rise in the following decade. According to Agnes Vetro, 24.7% of children and adolescents suffer from some form of behaviour, conduct or other psychiatric disorder (Vetró, 1997). The lifetime prevalence of depressive symptoms before the age of 18 years is 18-20%. Pedagogues, who should be able to recognize the various symptoms characteristic of different ages play a significant role in the early recognition of depression and other childhood and adolescent psychiatric disorders (Pászthy, 2005). Within the framework of the “Health behaviour of school age children” international study, nearly 30% of Hungarian 7th, 9th and 11th grader boys and 17% of girls reported significant mood problems. 49.9% of surveyed students showed no depressive symptoms at all, however, one fourth of them showed mild depressive symptoms. The survey employed the short version of the Child Depression Inventory (CDI). Thus subthreshold and masked depression is of peculiar significance in case of adolescents. If clinical or subthreshold depressive and anxiety episodes remain unrecognized, they influence wellbeing and future perspectives of the adolescent. These disorders impair school performance, increase days of absence from school, and limit the career opportunities for students (Makara, 2007). Lifetime prevalence of depressive episodes occurring before the age of 18 is 18-20% (Pászthy 2005). Teachers play a significant role in recognising depression, because apart from the parents they spend the most time with the child, and

they have to be the most sensitive towards the emotional, mood and behavioural changes in the child.

Suicide among young people is one of the most serious public health problems (Pompili et al., 2011). In Hungary between 2000-2010, in the 24+ age group 1395 young people lost their lives due to suicide (1150 males and 245 females) (Yearbooks of Health Statistics). The strongest risk factor also in this age group is unrecognized and therefore untreated mental disorder (depression, bipolar affective illness, alcohol abuse, psychosis, borderline personality disorder), but other factors also contribute. Of psychopathological symptoms, hopelessness, negative self-esteem, impulsiveness, hostility, aggression, disturbances of sexual orientation, the presence of suicidal ideation, negative life events, prior suicide attempts, family and environmental factors such as severe psychiatric illness of parents, and alcohol dependence of parents play a great role (Oravec, 2000).

The negative self-esteem of depressed patients develops during childhood and adolescence due to the strongly critical attitude of parents and teachers which reduces self-esteem (Pászthy, 2005). Negative self-esteem is markedly important from the viewpoint of the development of personality. In a survey of 14-18-year old male students in Budapest negative self-esteem was present in 30.9%; anhedonia in 29.9%; and negative mood in 33.2%. Among female students negative self-esteem was 36.5%; anhedonia was 29.4%; and negative mood was 37.7% (Kalmár P, 2013). In a survey of 10-17-year old students, 35% of healthy students reported a lack of skills related to relationship forming, 38% reported a disturbance of emotional expression, 12% reported the lack of conflict management skills, 13% reported a lack of need to be acknowledged, and 28% reported a disturbance of social adjustment. The above symptoms occurred more frequently in boys compared to girls (Gyöngyösi, 2007). Children and adolescents spend a lot of time at school, so teachers must be educated to notice any warning signs of suicide, but the majority of pedagogues not only do not know the most important mental and psychosomatic symptoms, but do not recognize them in children and do not know how to handle them either.

Parents have a reason to suppose that when the child is left with a qualified teacher, he possesses knowledge which enables him to deal with the child professionally, that he knows the crisis situations corresponding to the psychosocial developmental stage of the child and how to handle them, that he is able to recognize mental and physical symptoms in the

child, and knows what to do when these manifest. Unfortunately this is not true. We have reason to suppose that nowadays teachers are not prepared for this knowledge during their training, and they don't acquire them later on either.

The educational system cannot ensure that all children go on to become healthy adults and develop the characteristics necessary to nurture a healthy personality (1. general capacity for adaptation, 2. openness, 3. capacity for giving pleasure, 4. competent interpersonal behaviour, 5. intellectual abilities necessary to cope with challenges, 6. good memory, 7. ability for clear thinking, 8. emotional stability and control over motives, 9. social attitudes, 10. selflessness, 11. empathy, 12. capacity to maintain relationships, 13. creativity, 14. productivity, 15. autonomy, 16. identity, 17. emotional independence, 18. self-confidence, 19. self-acceptance, 20. integrity and 21. self-esteem). The consequence of the ignorance of some parents and teachers is the damage of the development of personality. This will be the hotbed of later psychiatric problems, including depression and suicidal behaviour (Kalmár, 2011).

The negative self-schema characteristic of adult depressive patients develops in childhood and adolescence as a result of multiple factors, the most significant of which are the strongly critical attitude of parents and teachers which decreases self-esteem.

At least 60-70% of the children and adolescents who suffer from depressive disorder have suicidal thoughts and intention (Kovács et al., 1993). 39% of depressed children have had at least one suicide attempt (Mitchell et al., 1988). In a Hungarian study, 43.7% of 7-14 year-old depressed girls and 36.5% of the depressed boys had suicidal thoughts (Baji et al., 2009).

SUICIDE IN THE WORLD

Every year approximately one million people, and more than 200 000 youths (24+) die by suicide in the world and more than 13 500 youths die in Europe (WHO). Research on suicide prevention has a special relevance in Hungary because the country can be characterized by the fourth highest suicide rate in the world, and the second highest suicide rate in the European Union, and the trends in suicides are rising from 2007. Only the Lithuanian suicide rate is higher. The suicide standard mortality rate was four times higher in males in 2000 and 4.1 times higher in 2011 in Hungary (male: 49.12; female: 12.24), and it was 3.03 times higher in males in 2000 and 2.6 times higher in 2010

Table 1. Number of suicides compared to total mortality by gender and age-groups, Hungary, 2000

	14>	15-24	25-34	35-44	45-54	55-64	65-74	75<	total
male	1.1	22.2	25.7	13.1	6.5	2.9	1.5	1.2	3.5
female	0.5	12.8	12.6	5.9	4.3	1.8	1.1	0.5	1.2
total	0.9	19.6	22.6	11	5.8	2.5	1.4	0.8	2.4

Table 2. Number of suicides compared to total mortality by gender and age-groups, Hungary, 2010

	14>	15-24	25-34	35-44	45-54	55-64	65<	total
male	0.54	23.72	26.06	14.95	6.81	3.04	1.19	2.99
female	0.33	15.32	13.07	7.2	3.72	1.67	0.38	0.84
total	0.44	21.37	23.43	12.72	5.85	2.59	0.73	1.91

Table 3. Suicide Standard Mortality rate by gender, for Hungary, Austria, Finland, Switzerland, European region, EU-15-members, European Union. 2000-2011 (<http://data.euro.who.int/hfadb>)

TOTAL	H	A	F	CH	EUROPA	EU-15	EU-UNIO
2000	29.17	17.53	21.48	17.16	17.97	10.03	17.5
2001	26.58	16.53	22.04	16.4	17.57	10.09	16.85
2002	25.43	16.96	19.9	17.46	17.12	10.2	16.97
2003	24.81	15.82	19.43	14.98	16.44	10.07	16.44
2004	24.34	15.22	19.32	14.99	15.71	9.92	15.95
2005	23.2	14.75	17.61	14.96	14.91	9.58	15.48
2006	21.77	13.4	19.0	14.86	14.11	9.22	14.61
2007	21.4	13.22	17.59	15.12	13.51	8.86	13.54
2008	21.54	12.69	18.45	14.4	13.28	9.1	14.02
2009	21.79	12.8	18.26	12.46	13.13	9.15	14.97
2010	21.72	12.7	16.78	11.13	12.67	9.11	14.72
2011	21.25	12.78	15.85	...	12.62	...	14.7

in the EU-15 Members. The suicide standard mortality rate was 21.25 (male: 35.78; female: 8.75) in 2011. The number of suicides in Hungary was fluctuating but always high in the last century. Between 2000 and 2010 the number of suicides decreased by 777, which is 23.8%. The number of suicides in Hungary

was 4000 in 1913, and decreased to 1952 by 1919, reached 3006 by 1945, then decreased to 1772, and then it started to rise again until it became one of the highest in the world. The number started to decrease from 4911 in 1983 to 2450 by 2007 due to unknown reasons. The decrease was 51.11%. Between

Table 4. Number of suicides by gender, Hungary, 2000-2011 (Yearbooks of Health Statistics)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
H-m	2463	2282	2195	2161	2087	2028	1861	1879	1911	1902	1945	1847
H-f	806	697	648	640	655	593	600	571	566	559	547	575
H-tot	3269	2979	2843	2801	2742	2621	2461	2450	2477	2461	2492	2422

Table 5. Suicide rate by gender, Hungary, 2000-2011 (Yearbooks of Health Statistics)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
H-m	50.7	47.1	45.5	44.9	43.5	42.3	38.9	39.4	40.1	40	40.9	39.0
H-f	15.1	13	12.2	12	12.3	11.2	11.3	10.8	10.7	10.6	10.4	11.0
H-tot	32	29.2	28	27.7	27.1	26	24.4	24.4	24.7	24.6	24.9	24.3

Table 6. Alcohol-related Standard Mortality Rate for Hungary, Austria, Finland, Switzerland, European Region, EU-15-members, European Union, 2000-2011 (<http://data.euro.who.int/hfad>)

TOTAL	H	A	F	CH	EUROPA	EU-15	EU-UNIO
2000	159.86	75.17	90.37	58.73	87.56	61.72	108.54
2001	151.8	73.5	90.93	57.91	87.54	61.19	108.0
2002	149.51	73.28	88.5	56.55	88.45	60.25	107.37
2003	149.55	73.61	87.6	54.84	87.14	59.57	105.11
2004	143.49	69.61	95.14	52.39	85.59	57.15	102.71
2005	129.47	69.33	93.26	50.72	84.49	56.03	101.16
2006	125.66	64.37	92.81	51.98	82.69	53.88	99.02
2007	124.06	64.63	93.73	52.2	81.66	52.64	98.87
2008	118.29	61.84	91.47	50.4	80.98	51.97	98.18
2009	114.42	63.67	88.92	48.58	79.36	50.95	93.05
2010	108.81	60.19	85.05	45.83	78.26	50.25	89.56
2011	100.43	58.3	80.69	...	77.52	...	88.47

2000 and 2010 the suicide rate decreased from 32.0 to 24.9, which was a 22.2% decrease, as the population decreased as well. The decrease was most obvious among women, from 15.1 to 10.4, which was 31.1%. Among men the number decreased by 21.03%, while suicide rate decreased by 19.3%.

ABOUT SUICIDE

Victims of suicide are not healthy individuals. They are always suffering from psychiatric or mental, physical or somatic, cultural (social, historical, mythological) and spiritual disorders.

Every suicide has at least four aspects:

- (1) Biological (objective, abnormality in the body, especially in the brain)
- (2) Psychological, psychiatric (objective and subjective, abnormality in the mind)
- (3) Cultural and environmental (mainly subjective, abnormality in the environment)
- (4) Spiritual aspect (subjective, loss of hope and belief)

In the past decades a few good models of suicidal behaviour have been constructed which have led to important developments in our understanding of the aetiology and course of suicidal behaviour. The authors of different models not only abandoned the four aspects of suicide but took the duality of suicide out of consideration as well, which is partly based on biological abnormality, objective and can be examined with scientific methods (quantitative research), and partly based on culture events which are mostly subjective, spiritual, mythological, subject to social changes, and can only be examined indirectly, hermeneutically (qualitative research). Most classifications are based on the subjective aspect of suicide and only a few of them take biological abnormalities into consideration. If we realize the complexity of suicidal behaviour we can understand it better (Kalmár, 2011).

In spite of the various factors we already know in the background of suicide, we do not know the real reason, and we cannot know it because suicide is multicausal. Therefore it can never be traced back to one single cause and always large number of biological, psychological-psychiatric, historical, social and cultural factors play a role in its development. Despite considerable efforts, there are still no sensitive, valid, reliable, specific and feasible peripheral/blood (laboratory) biomarkers that can diagnose MDD, classify MDD subtypes and measure treatment response (Pajer et al., 2012). Also there is no sensitive and specific laboratory marker of suicidal behaviour available in everyday practice. According to our present knowledge (because of the double nature of suicide), the estimation of suicide risk should be based on clinically available data. Interaction of risk and protective factors determine the vulnerability of an individual to develop suicidal behaviour. Several risk factors were found to be significantly associated with suicide. Suicide risk factors are cumulative in their nature; the higher the number, the higher the probability is of suicidal behaviour. A sound evaluation of risk and protective factors should be performed for every patient at risk for suicide (Wasserman et al., 2012).

PROTECTIVE FACTORS

The reasons that people take their own life are very complex. The factors that influence whether someone is likely to be suicidal (or not to be) are known as suicide risk-factors and protective factors. The literature identified several protective and risk factors. We shall try to classify the suicide protective and risk factors according to physical-biological, mental-psychological, cultural- social, and spiritual aspects. However, it must be remembered that these factors are not necessarily present in each and every case and may vary from one country to another, one person to another, depending on cultural, political, (spiritual) and economical features.

Risk and protective factors can occur (1) at the physical or biological-somatic level which includes physical circumstances, genetic and health, and diseases; (2) at the mental or psychological level, which includes mental health, self-esteem, and ability to deal with difficult circumstances, manage emotions, or cope with stress; (3) at the cultural level or the broader life environment and this includes the social, political, environmental, and economic factors that contribute to available options and quality of life; (4) at the social level, which includes relationships and involvement with others such as family, friends, workmates, the wider community and the person's sense of belonging; (5) at the spiritual level, which includes faith, hope, charity, despair, salvation. A greater number of protective factors in combination reduces risk of suicide.

Protective factors of suicide

1. Physical and biological protective factors

Time, different age-groups, gender (Hungary: young female), genetics, intact central nervous system and mental health, healthy lifestyle, different age groups, pregnancy, having a great number of children are well-known suicide protective factors.

2. Mental and psychological protective factors

Mental and psychological protective factors include intact perception, good mental health, being in control of behaviour, thoughts and emotions, intact personality, self-realization, self-confidence, openness towards others, openness towards new knowledge, desire or will to live, adaptable temperament, stable psychological immune system, positive thinking, right problem solving skills, cognitive flexibility, coping skills, effectiveness, personal and professional success, ability to ask for somebody's

help, consultation ability prior to important decisions, high self-efficacy, high self-esteem, tackling stigma, refusing attitude towards suicide, positive attitude towards life.

3. Cultural and social protective factors

Cultural and social protective factors of suicide are full and active life, achievement, self-help, strong connection to family, personal relationship (marriage, children, stability etc.), social-community support and network, supportive and positive school and work experience, good neighbourhood, good connection with teachers and adults, membership in clubs, engagement in sports, good quality social services and health care, reducing availability of means, good crisis services, status, responsibility, reputation, belonging, supporting family, good relationship with others, good mental education, intact society, responsibility of political systems, work groups, etc.

4. Spiritual protective factors

Spiritual protective factors of suicidal behaviour are humility, ascesis, devotion, sacrifice, confidence, happiness, fast/lent wisdom, contrition, meditation, adoration, virtues, moral laws, fortitude, vigilance, vital force, oblivion, confession, gratitude, faith, truth, prayer, worship, clemency, adoration, prayer, and the worship of god, devotion towards god, connection with god, lack of harmful habits and passion (desire, disgust, hate, pleasure, lovesickness, audacity, fear, hope, despair, wrath), grace, mercy, compassion, acknowledgement, spiritual peace, harmony, meditation, forgiveness, repentance, forgiveness, satisfaction, salvation, prudence, self-control, self-sacrifice, self-denial, self-knowledge, self-education, self-possession, joy, positive thinking, hope, order, pity, regret, contemplation, spiritual knowledge/spiritual literacy, love, charity, completeness, feeling of closeness of god, respect, ten commandments, patience, salvation, religiosity (Tanqueray, 1932).

SUICIDE & SPIRITUALITY

In psychiatry man's connection with spirituality, religion and religiosity are underestimated. Psychiatrists should not ignore or reject religion, irrespective of personal beliefs. Studies show that religion can be a source of hope and confidence. Taking the beneficial effect of religiosity on depression vulnerability into consideration, religiosity can reduce the risk of depression and diminish suicide risk. Rates of suicide are lower in the most religious countries. Negative

association between religion and suicidal behaviour was also found at the individual level. Religious faith and hopelessness correlate negatively with each other. Belief in god protects the individual against depression and suicide, and contributes to emotional stability, balance and healthy life. Faith can help destigmatize mental illness and change the perception of suicide from something that is shameful to a problem that can be prevented.

Faith groups can also assist suicide prevention by helping their members

- (1) identify risk factors,
- (2) encouraging treatment for depression,
- (3) sustaining protective factors and
- (4) offering support and guidance to individuals during stressful times.

The role of spirituality is increasing among adolescents. Young people deal with the great questions of existence, life and death much more than the adults especially in depressive condition (Prag, 2009; Stack and Kposowa, 2011).

Risk factors of suicide

1. Physical and biological risk factors

Lack of physical and biological protective factors, geographic/climatic differences, time, genetic predisposition, gender, family history, previous suicide attempt, impairment of central nervous system, dysregulated serotonergic and noradrenergic system are risk factors for suicide. Many changes in the central nervous system have been associated with suicidal behaviour. The serotonergic, noradrenergic and dopaminergic neurotransmitter systems and the hypothalamic–pituitary–adrenal axis have been most studied. Alteration in functioning of these systems is associated with increased risk of suicidal behaviour. The origins of altered neurobiological function may be both genetic and developmental (Mann and Currier, 2011). Dysfunction, impairment or lesion of the prefrontal cortex plays a role in the occurrence of both depression and suicide. The most important neuropsychological changes include perception disorder, attention disorder, memory disorder, disturbance of verbal contact, impairment of the ability to think positively about the future, decrease in interpersonal conflict solving capacities, decrease of mental flexibility, decrease in activity, lack of initiatives, decrease of decision making capacities, lack of motor activity, slowed and constricted thinking with decreased content versatility, decrease in emotional resonance, and loss or significant reduction in

capacity for joy and pleasure (Horányi, 1966; Must et al., 2005; Mizrahi et al., 2009; Heeringen et al., 2011). Besides the disturbances of biogenic amine metabolism, other biological factors also play a role in the emergence of depression and suicide. Serious medical illnesses, demographic factors: adolescent and young men, old age (both sexes), vulnerable intervals (spring, early summer, pre-menstrual period, menstrual cycle, pregnancy and abortion are also risk factors.

The next sorts of time play important role in suicidal behaviour: cosmic time, physical time, biological time, psychic time, cultural time, social time (political time), geographic time, historical time, artistic time, spiritual time, limited time (finite time), predicted time, present-fatalistic time, lack of transcendental future time. The present fatalistic time perspective, the past negative time perspective and the lack of transcendental future time perspective are important predictors of suicide thoughts and suicidal behaviour (Zimbardo and Boyd, 2012).

2. Mental and psychological risk factors

Lack of mental protective factors, disturbances of perception, unrecognized and under-treated mental/psychiatric disorders, "madness", affective disorders, schizophrenia, borderline personality, alcohol and substance use disorders, comorbid anxiety or personality disorder, sorrow, failure, shame, love affair, biological "inheritance", eating disorders, (anorexia nervosa and bulimia), loss of vigilance, personality traits (hopelessness, neuroticism, extroversion, impulsivity, aggression, anger, irritability, hostility, anxiety), attention deficit hyperactivity disorder and low problem solving skills, negative attitude towards life has been demonstrated as risk factors for suicide (Rihmer et al., 2002; Mann et al., 2005). Alcohol may be important in suicides among mentally health individuals. Alcohol-dependence is an important risk factor for suicidal behaviour (Sher, 2000a; b; Sher, 2008).

3. Cultural and social risk factors

Thomas Masaryk, in his 'Suicide and the meaning of civilization' (1881) argued that the rise in suicide was a product of the spread of civilization. Suicide is the fruit of progress, of education, of civilization (Mäkinen, 2009). Suicide is a small monster of our civilization, but not only a social problem. Lack of cultural and social protective factors, religion, traditions, attitudes, model effect, imitation, music and literature effect, Werther effect, Gloomy Sunday (Stack, 2007-2008),

selfishness, social problems (anomic society), increasing fear in the society (Hankiss, 2006), defencelessness, irresponsibility of political systems, genocide, wars, environmental disasters, social feeling of guilt, ambivalent or permissive attitude toward suicide, economic differences, level and availability of social and health care, lack of mental education, immorality, prejudice, experiencing of discrimination, racism or culture clash, crime, violation of law, exploitation, poverty and deprivation, homeless people, the availability of lethal methods (domestic gas, car exhaust gas, guns), social 'inheritance', negative life-events during childhood (separation, parental loss, isolation), current negative life events, living alone, divorce, separation, widowhood, discord, loss of job, unemployment, psycho-social and economic crises all play a role in suicide.

Although the low socio-economic status can be a risk factor for suicide, the individual socio-economic status is a more important suicide risk factor than area-level socio-economic deprivation. There are few statistical data about suicides among the gypsy population in spite of the fact that this population forms the largest minority group in Hungary (the estimated number of gypsy population is about 500,000-1,000,000). Characteristic features of the gypsy population include accumulated difficulties in lifetime, extremely wrong living conditions, poor housing conditions, stigma and disrespect, unemployment, lack of job opportunities, social exclusion, grave poverty, poor educational level, living in socio-economically deprived areas, poor physical and mental health, unhealthy lifestyles (unhealthy nutrition, malnutrition, starvation, smoking, alcohol consumption, etc.). Most of them are living in extremely low socio-economic status for years, but the committed suicides are very few among them (Kovai et al., 2000; Lakatos et al., 2007).

4. Spiritual risk factors

Lack of spiritual protective factors, lack of faith, hopelessness, lack of salvation, lack of confession, lack of love, lack of charity, unloving, inability to love, despair, self-sacrifice, feelings of guilt, torment, self-incrimination, lack of desire of life, lack of vital force, lack of object in life, harmful habit & passion (desire, disgust, hate, pleasure, love sorrow, audacity, fear, hope, despair, wrath) are spiritual risk factors of suicide.

Hopelessness is the most important spiritual risk factor. According to the Greek mythology hope holds back people from suicide all over the world, because it is the source of all our unforeseen troubles.

In the past centuries psychologists and psychiatrists have taken over some notion from spirituality. They manage spiritual signs as cognitive factors. It is high time that these two groups are separated. Beck recognized the role of hopelessness in the aetiology of suicidal behaviour in 1974. His Hopelessness Scale is based mainly on spirituality. The shortened version of the Beck Hopelessness Scale consists of items 7, 14, and 20 item. This shortened version of the Beck Hopelessness Scale is a tool for easy application in general practice (Perczel Forintos, 2001; 2007). In those families where suicide occurred previously family members have a 26 times higher chance to commit suicide compared to those where suicide did not occur (Kopp et al., 1987).

According to most psychiatrists the strongest suicide risk is an unrecognized and untreated mental disorder. Some metaanalyses and reviews have shown that most common diagnoses are affective disorders, substance abuse disorders, personality disorders and schizophrenia. Although presence of a mental disorder is highly associated with suicide in developed countries, we do not know the mechanisms that explain why some people with a mental disorder are at greater risk of suicides, while other people with a mental disorder are not suicidal at all. However, there are many other factors that are associated with suicide risk (Mishara and Chagnon, 2011). These factors may play important roles in the development of suicidal behaviour.

A depressed individual always suffers from a lot of serious physical, somatic, mental, psychological, cultural, social and spiritual signs and symptoms. It is not a new discovery. Depression as melancholy was known since the dawn of our civilization, and already Hippocrates considered it an illness of somatic origin, caused by the blackening of bile and becoming excessive at the expense of the other bodily humours. This way it poisons the blood, which is the nest of mind and soul ('melan- chole' [Greek] = black bile). Melancholy is a disturbed mental state due to somatic and spiritual origins, an illness of mood, temperament, body and spirit. This state is coupled with fear, phobia and dysthymia. Both the origin and consequence are somatic and (primarily) spiritual (Földényi, 1992; Kalmár, 2003; Kalmár, 2012c).

Patients suffering from depression can manifest any of more than 100 types based on the applied diagnostic system (Ban, 1989; Kalmár, 2009a). This illness shows an extremely varied pathology, aetiology, genetics, symptomatology, diagnostics, progression, outcome and treatment, and although there is evi-

dence concerning the causative role of biochemical alterations in depression, receptorial changes in the nervous system, and somatic processes, we do not as yet possess illness markers with proven specificity. It is, however, certain that of those suffering from any of the more than hundred types of affective disorders, only a small portion commits suicide. It also hinders recognition that current diagnostic systems are not capable of accurately defining psychiatric disorders, therefore in many cases only "subthreshold" diagnosis can be established (Balázs et al., 2000). It is important to mention masked depression (Kielholz, 1968) which causes significant diagnostic difficulty especially in the elderly. In this case neither the physician nor the patient recognizes depression unless they think of it specifically. This may be one explanation why GPs do not recognize depressive disorders.

The connection between depression and suicide is full of contradictions. The correlation between hopelessness and suicidal behaviour is stronger than that of depression and suicidal behaviour. The psychiatric patients' risk of suicide is 3-12-fold greater than that of non-patients, but 85% of the patients who suffer from mood disorder never commit suicide (Kaplan and Sadock, 1991).

LACK OF MENTAL EDUCATION

There are huge deficits of mental health promotion and primordial prevention in Hungary. The pedagogic society is in a crisis in Hungary. The Hungarian education system produces below-average results with above-average costs while reproducing the above average inequalities. Due to a severe lack of mental knowledge the number of children and adolescents with conduct disorders and mental impairment is increasing, and when this is coupled with the increasing lack of knowledge from the side of pedagogues this contributes to the inefficiency of work in schools. The aberrations producing young victims of suicide and murderers are also consequences of the deficiencies in nurturing. Nurturing should be more important than ever (Kalmár, 2011).

SOME IMPORTANT SYMPTOMS AND SIGNS THAT NEITHER PARENTS NOR TEACHERS ARE ABLE TO RECOGNIZE AND HANDLE

Important signs include general somatic symptoms (chest, cardiac-respiratory, abdominal, muscle-articular, and other physical symptoms); change in eating habits (decreased or increased appetite); menses

disturbances; headaches; insomnia and other sleep disturbances; and chronic illness or disablement. Further signs to consider include sudden/unexpected change in weight, change in mood, depression, inappropriate affect, restricted/constricted/blunted affect, marked emotional instability, ambivalence, apathy, anhedonia, sudden tearfulness, crying, irritable mood, impatience, intolerance, dysphoric mood, restlessness, agitation, profound unhappiness, grief or mourning, bereavement, alexithymia, anxiety, fear, distractibility, feeling of boredom, lack of motivation, slowness, weariness, indecisiveness, feeling of inadequacy, negative self-esteem, lack of self-confidence, minority complex, self-respect disturbance, despair, anger at self, self-hate, self-incrimination, unsociableness, quarrelsomeness, aggression, acting out, self-harm, struggling with sexual identity, lack of faith, magical thinking, spiritual disturbances, superstitious habits, hopelessness, lack of love, diurnal variation, time disturbances. Similarly important are ideas and themes of depression, death, and suicide, previous direct and indirect suicide threats or attempts, statements or suggestions that they would not be missed if they were gone or 'I won't cause you any more trouble', suicidal thoughts and intention, collecting and discussing information on suicide methods, giving away the prized possessions, a history of suicide in the family, unexpected poor academic performance or failure, learning disturbances, hypersensitivity, extreme disappointment at being rejected for a course, abrupt changes in attendance, such as increased absences, tardiness, or truancy, lack of interest in surroundings and activities, withdrawal from usual interest, change in relationship with friends and classmates, abrupt changes in dress and appearance, reduced self-care, disturbances of personal connection, loneliness, withdrawal from relationships, friends, family, isolation, beginning to spend long periods of time in solitude, loss of interest in school and extracurricular activities, lack of positive thinking, dropping out of sports and other clubs, experience of discrimination, racism or culture clash, dwelling on insoluble problems, hypersensitivity to other people's style of communication (verbal and nonverbal), break up with a boyfriend or a girlfriend, loss of a pet, crime, involvement in high risk activities, increased use of alcohol and drugs, high-risk or violent behaviours, risky sexual behaviour, dangerous driving, uncritical behaviour, irresponsibility, behaviour disturbances, changes in relationship with parents and teachers, stress due to recent disintegration of their family, suicide in the family, bad financial situation (unemployment in

the family, serious indebtedness, loss of home etc.), alcoholism or other psychiatric disorders in the family, a recent death or suicide in the family, loss of a friend or an important person through death or suicide (including idols as pop stars and other heroes), and grief about a significant loss.

MAIN RECOMMENDATIONS

1. Strengthening the mental health of teachers and other school staff
2. Strengthening students' self-esteem
3. Increasing the level of mental education/nurturing
4. Promoting emotional expression (encourage to confide in parents and other adults eg. teachers, friends, health workers etc.)
5. Preventing bullying and violence at school
6. Providing information about mental care services
7. Recognizing and treating every depressed adolescent (Kalmár et al., 2008)
8. Invariably trustful communication
9. Improving school staff's communication skills
10. A prompt, decisive intervention with the suicidal young person
11. Removing means of suicide from suicidal adolescents' proximity
12. Every school needs to have an emergency plan on how to inform school staff, especially teachers, fellow pupils and parents when suicide has been attempted or committed in school

CONCLUSION

Although the gap between what we know and what we do is undoubtedly lethal, it is also tragically true that there is a huge gap between what we know and what we need to know to prevent suicide more effectively (Jamison, 1999; McKeon, 2009). In fact a victim of suicide does not want to die but he is not able to live under the current circumstances apart from his mental disorder. If somebody can listen to his cry for help at the crucial moment and hold out hope for him he will not commit suicide. The use of valid, reliable screening instruments is essential. We must pay attention to depression and hopelessness. If every patient who appears in the consulting room of the family-doctor gets a shortened Beck Depression and a Hopelessness scales, GP's can immediately recognize endangered individuals. These easy-to-fill scales are the simplest, cheapest and most effective examination for the recognition of depression and

suicidal behaviour in the medical practice. Unfortunately the Semmelweis syndrome is in effect here (it is as simple as the hand-washing with chloride of lime but nobody uses it) (Kalmár, 2012c). Every year there are more than 55 million doctor-patient meetings in Hungary but the GP's do not use this simple scale. Every physician should recognize depression and spiritual suicide risk, because it is the first step to prevention.

If we try to eliminate the risk factors only in one group, the result will be partial, therefore prevention of suicide is always a complex and sophisticated process that includes not only increasing physical-biological, mental-psychological, cultural-social, and spiritual protective factors but struggling against physical-biological, mental-psychological, cultural-social, and spiritual risk factors as well. The intervention to decrease depressive disorders and hopelessness and increase self-esteem and coping skills among adolescents should be effective suicide prevention strategies. To make this more difficult, the number of child psychiatrists is extraordinarily low, so parents of problematic children are not able to turn to a child-psychiatrist. Primary prevention is the most effective method but its efficiency is questionable if there is no effective mental nurturing from early childhood both in the family and in the kindergarten and school. The consequence of the ignorance of some parents and teachers is the disruption of personality development. This will be the hotbed of later psychiatric problems, including depression and suicidal behaviour. Today te family paediatricians' service is not able to carry out this tasks. If well-trained parents and teachers are able to nurture children efficiently, if medical/mental health service is able to provide effective care for every child, the number of mental disorders and suicides will decrease, and suicide prevention will not be a quixotic struggle. The possibilities of mental health education have no limits. Internet (available in every school and accessible for the majority of the population) could help cure the problem quickly and at the core. In the past decade the number of internet users increased by 763.8% in Hungary and internet is now available for 61.8% of the population. The number of people using mobile internet is beyond one million (Internet World Stats, 2010). Internet-based training has extensive literature, and by introducing and employing internet-based postgraduate education for GPs, family paediatricians, pedagogues and others huge achievements could be accomplished incredibly quickly and at a relatively low cost (Kalmár, 2009b; 2012a).

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REFERENCES

1. Baji, I., Nestor, L.D., Kovacs, M., George, C.J., Mayer, L., Kapornai, K., Kiss, E., Gáboros, J., Vetró, Á. (2009) Age, sex, somatic complaints, and the symptom presentation of childhood depression in a Hungarian clinical sample. *J Clin Psych*, 70:1467-1472.
2. Balázs, J., Bitter, I., Lecrubier, Y., Csiszér, N., Ostorharics, Gy. (2000) Prevalence of subthreshold forms of psychiatric disorders in persons making suicide attempt in Hungary. *Eur Psychiatry*, 15(6): 354-61
3. Ban, T. A. Composite Diagnostic Evaluation of Depressive Disorders (CODE-DD) IUNCP Company, Nashville, 1989.
4. Durkheim, É: Az öngyilkosság. Osiris Kiadó, Budapest, 2000.
5. Földényi, L: Melankólia. Akadémia Kiadó, Budapest, 1992.
6. Gyöngyösi K. K. (2007) Serdülőkorú fiatalok társas beilleszkedése. *Új Pedagógiai Szemle*, 2007. júl-aug.
7. Hankiss E. *Félelmek és szimbólumok*. Osiris Kiadó, Budapest, 2006.
8. Heeringen, K., Godfrin, K., Bijttebier, S. Understanding the Suicidal Brain: A Review of Neuropsychological studies of Suicidal Ideation and Behaviour. In: O'Connor, R. C., Platt, S., Gordon, J. (Eds). *International Handbook of Suicide Prevention*, John Wiley & Sons, New York, 2011, pp. 151-168.
9. Horányi, B: *Neurologia*. Medicina Könyvkiadó, Budapest, 1966, pp. 192-199.
10. Jamison, K.R. *Night Falls Fast*. Random House, New York, 1999.
11. Jellinek, M. S., Snyder, J. B. (1998) *Depresszió és öngyilkosság gyermek és serdülőkorban*. *Gyermekgyógyászati Szemle*, 148-164.
12. Kalmár, S. Reversing the rising trends in suicides in Bács Kiskun County. *Moscow International WHO Training Course for Public Health Administrators*. 1990. Course paper.
13. Kalmár, S. (2003) *Depressziós páciensek öngyilkossági veszélyeztetettsége*. *Háziorvos Továbbképző Szemle*, 8: 520-525.
14. Kalmár, S., Szanto, K., Rihmer, Z., Mazumdar, S., Harrison, K., Mann, J.J. (2008) Antidepressant prescription and suicide rates: Effect of age and gender. *Suic Life-Threat Behaviour*, 38(4): 363-374.
15. Kalmár, S. (2009a) Disturbance of Perception in Depressive Disorders in Different Diagnostic Systems. *Neuropsychopharmacol Hung*, 11(4): 227-234.
16. Kalmár, S. The Advantages and the Disadvantages of the Internet in Preventing Suicide. In: L. Sher, A. Vilens (Eds), *Internet and Suicide*. Nova Science Publishers, Toronto, 2009b.
17. Kalmár, S. (2011a) *Suicide Preventive Programme in the Region of Kiskunhalas, Hungary*. 3rd Eurosafe Conference on Injury Prevention and Safety Promotion. 16-17th June, 2011. Budapest. Parallel Session: Prevention of Suicide and Deliberate Self-Harm. 16th June, 2011. Gödöllő.
18. Kalmár S. (2011b) The relation between education and mental health in adolescents in Hungary. *Psihiatru ro. Anul VI. Nr. 27. 4/2011*. pp. 6-16.
19. Kalmár S. Az Internet lehetőségei az öngyilkosság megelőzésében. In: Kalmár S, Németh A, Rihmer Z. (Eds) *Az öngyilkosság orvosi szemmel*. Medicina, Budapest, 2012, pp. 354-375.
20. Kalmár S. (2012b) Depression and suicide in Hungarian children & adolescents. 2000-2010. V. *Nemzetközi román-magyar*

- pszichiátriai konferencia. VII. Országos Pszichiátriai Szimpózium, Csíkszereda, Június 21-24.
21. Kalmár S. (2012c) Difficulties of the understanding of the suicid protective and risk factors. Biological-somatic, mental-psychological, cultural-social & spiritual dimensions. "Personalitatea normala si patologica. Intre dimensiunile biologice spirituale." Targu mures, 1-2 June, 2012
 22. Kalmár, P. (2013) Depressziós tünetek előfordulása adollescens korú fiataloknál Budapesten a XIV. kerületben. Egészségfejlesztés.
 23. Kaplan, H.I., Sadock, B.J. Synopsis of Psychiatry. Williams & Wilkins, Baltimore 1991, p. 555.
 24. Kielholz, P. A depressziók diagnózisa és terápiája a gyakorlatban. Medicina, Budapest, 1968. pp.12-17.
 25. Kopp, M. Skrabsky, Á. Magyar, I. (1987) Neurotic at risk and suicidal behaviour in the Hungarian population. Acta Psychiatr Scand. 76: 406-413.
 26. Kovai, M., Zombory, M. A magyarországi roma népesség foglalkoztatottsága. Delphoi consulting, Budapest, 2000.
 27. Lakatos, Sz., Angyal, M. Solymosy, J.B., Szabóné Kármán, J., Csépe, P., Forrai, J., Lökkös, A. Egyenlőség, egészség és a roma/cigány közösség. Khetanipe for the Roma Unity Association, Pécs-Madrid, 2007.
 28. Makara, P. Mentális egészségfejlesztési stratégia – pozitív egészség-fejlesztés és primer prevenció. OEI, Budapest, 2007.
 29. Mäkinen, I.H.. Social theories of suicide. In: Wasserman D, Wasserman C. (eds), Oxford Textbook of Suicidology and Suicide Prevention. Oxford University Press. Oxford, 2009, pp- 139-148
 30. Mann, J.J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., Hegerl, U., Lonquist, J., Malon, e K., Marusic, A., Mehlum, L., Patton, G., Philips, M., Rutz, W., Rihmer, Z., Schmidtke, A., Schaffer, D., Silverman, M., Takahashi, Y., Varnik, A., Wasserman, D., Yip, P., Hendin, H. (2005) Suicide Prevention Strategies. A Systematic Review, JAMA, 294: 2064-2074.
 31. Mann, J.J., Currier, D. Evidence-Based Suicide Prevention Strategies. An Overwiev. In: Pompili, M., Tatarelli, R. (Eds). Evidence-Based Practice in Suicidology: A Source Book. Hogrefe Publishing, Cambrdige, 2011. pp. 67-87.
 32. McKeon, R. Suicidal Behavior. Hogrefe & Huber Publishers, Cambridge, 2009
 33. Mishara, B.L., Chagnon, F. Understanding the Relationship between Mental Illness and Suicide and the Implications for Suicide Prevention. In: O'Conor RC, Platt S, Gordon J. (Eds). International Handbook of Suicide Prevention: Research, Policy and Practice. John Wiley & Sons, Ltd, New York, 2011, pp. 609-623.
 34. Mizrachi, H.B., Underwood, M., Mann, J., Arango V. Post mortem studies of serotonin in suicide. In: Wasserman, D., Wasserman, C., (Eds). Oxford Textbook of Suicidolgy and Suicide Prevention, Oxford, 2009, pp. 351-354.
 35. Must, A., Szabó, Z., Bódi, N., Szász, A., Janka, Z., Kéri, Sz., (2005) A prefrontális cortex neuropszichológiai vizsgálata major depresszív zavarban. Psychiat Hung. 20 (6): 412-416.
 36. Oravec, R. (2000) Serdülőkorú suicid veszélyeztetettség, a trauma és a szülői alkoholfogyasztás. Szenvedélybetegségek VIII.évf. 2.sz. 114-120.
 37. Pajer, K., Andrus, B.M., Gardner, W., Lourie, A., Strange, B., Campo, J., Bridge, J., Blizinsky, K., Dennis K., Vedell, P., Churchill, G.A., Redei E.E. (2012) Discovery of blood 'transcriptomic' markers for depression in animal models and pilot validation in subjects with early-onset major depression. Transl Psychiatry in press.
 38. Pászthy, B. (2005) Depresszió gyermek és serdülőkorban. Fejlesztő Pedagógia, 16. évfolyam 5-6. szám, 12-15.
 39. Pethő, B. Részletes Pszichiátria. Funkcionális betegségek és zavarok. Magyar Pszichiátriai Társaság, Budapest, 1989. pp. 1178-1198.
 40. Perczel Forintos, D., Sallai, J., Rózsa, S. (2001) A Beck-féle Reménytelenség Skála pszichometriás vizsgálata. Psychiat Hung, 16 (6):632-643.
 41. Perczel Forintos, D., Kiss, Zs., Ajtay, Gy. Kérdőívek, becslőskálák a klinikai pszichológiában. Országos Pszichiátriai és Neurológiai Intézet, Budapest, 2007.
 42. Pompili, M., Innamorati, M., Girardi, P., Tatarelli, R., Lester, D., Evidence-Based Interventions for Preventing Suicide in Youths. In: Pompili, M., Tatarelli, R. (Eds). Evidence-Based Practice in Suicidology: A Source Book. Hogrefe Publishing, Cambridge, 2011, pp. 171-209.
 43. Praag, H.M. The role of religion in suicide prevention. In: Wasserman, D., Wasserman, C. (Eds) Oxford Textbook of Suicidology and Suicide Prevention. Oxford University Press, Oxford, 2009, pp. 7-14.
 44. Rihmer, Z., Belső, N., Kiss K. (2002) Strategies for suicide prevention. Cur Opin Psychiatry, 15: 83-87
 45. Rihmer, Z., Rutz, W. Treatment and prevention of attempted suicide and suicide in primary care. In: Wasserman, D., Wasserman, C. (Eds) Oxford Textbook of Suicidology and Suicide Prevention. Oxford University Press, Oxford, 2009, pp. 693-699.
 46. Sher, L. (2008) Depression and suicidal behavior in alcohol abusing adolescents: possible role of selenium deficiency. Minerva Pediatrica 2008;60(2):201-9.
 47. Sher, L. (2006a) Alcohol consumption and suicide. Q.J.Med 2006; 99 (1:) 57-61.
 48. Sher, L. (2006b) Alcoholism and suicidal behavior: a clinical overview. Acta Psychiatr Scand 2006;113(1):13-22.
 49. Stack, S., Kposowa, A.J. Religion and Suicide: Integrating Four Theories Cross-nationally. In: O'Connor, R.C., Platt, S., Gordon, J. (Eds) International Handbook of Suicide Prevention. John Wiley & Sons Ltd, New York, 2011. pp. 59-74.
 50. Stack, S., Krysinska, K., Lester D. (2007-2008) Gloomy Sunday: Did the "Hungarian Suicide Song" really create a suicide epi-demic? OMEGA, Vol. 56(4) 349-358.
 51. Tanqueray, A. A tökéletes élet. Aszkétika és misztika. (Fordította: Czumbel Lajos) Société de S. Jean L'Évangéliste. Desclée & Cie. Paris, Tournai, Roma, 1932.
 52. Vetró, Á. (1997) Iskoláskorú gyermekek viselkedési problémáinak epidemiológiai vizsgálata Szegeden. Psyciat Hung 12 (2): 193-200.
 53. Volentics, A. (2005) A depresszió előtűnetei gyermek és serdülőkorban. Fejlesztő Pedagógia, 16. évfolyam 5-6. szám, 9-11.
 54. Wasserman, D., Rihmer, Z., Rujescu, D., Sarchiapone, M., Sokolowski, M., Titelman, D., Zalsman, G., Zemishlany, Z.V., Carli, V. (2012) The European Psychiatric Association (EPA) guidance on suicide treatment and prevention, Eur Psychiatry. 27. 129-141.
 55. Yearbooks of Health Statistics. 2000-2010. Hungarian Central Statistical Office.
 56. Zimbardo, P., Boyd, J. Időparadoxon. HVG Könyvek, Budapest, 2012.

Az öngyilkosság megelőzésének lehetőségei kamaszoknál. A védő- és kockázati tényezők holisztikus megközelítése

Nincs még egy olyan komplex szomatikus, biológiai, mentális, pszichológiai, pszichiátriai, kulturális, szociális és spirituális jelenség, amely nemcsak súlyos közegészségügyi gond, de értelmetlen, megmagyarázhatatlan, tragikus, fájdalmas, ellentmondásos, misztikus is, mint az öngyilkosság. A számtalan ok ellenére, amellyel a történelem során magyarázták, a valódi okát nem tudjuk, de nem is tudhatjuk, mert multikauzális, és sohasem vezethető vissza egyetlen okra. A kialakulásában számos más tényező is szerepet játszik, de a legerősebb kockázati tényező a fel nem ismert és kezeletlen depresszió. Magyarországon az öngyilkosság a fiatalok között súlyos probléma. 2000-2010 között a 24 évnél fiatalabb korcsoportban 1 150 férfi és 245 női áldozat volt. A 15-24 éves korcsoportban 2010-ben is az öngyilkosság volt a vezető halálok. Az öngyilkos áldozatok nem egészségesek, mindig valamilyen szomatikus, mentális, kulturális és spirituális zavarban szenvednek. A szerző megpróbálja holisztikusan osztályozni a védő és kockázati tényezőket, kihangsúlyozva, hogy ezek a tényezők egymással összefüggésben fejtik ki a hatásukat. Ezek a tényezők előfordulnak (1) fizikai, biológiai, szomatikus szinten (amely magában foglalja a fizikai környezetet, a genetikát, a betegségeket és a testi egészséget); (2) mentális, pszichológiai szinten (beleértve az önértékelést, a konfliktuskezelő módszereket, az érzelmek, indulatok megfelelő kezelését); (3) kulturális szinten, (beleértve a társadalmi, gazdasági és politikai tényezőket, az életminőséget); (4) szociális szinten (amely magában foglalja a családot, barátokat, szomszédokat, munkahelyet); (5) spirituális szinten, (amely magában foglalja a reményt, a hitet, a szeretetet, a kétségbeesést). Mivel a gyermekek viszonylag sok időt töltenek az iskolában, a tanároknak megfelelő ismeretekkel kellene rendelkezniük ezen tényezőket és a fontosabb pszichoszomatikus tüneteket illetően, tudniuk kellene ezeket megfelelő módon kezelni, de sajnos a többségük erre nincsen felkészítve. A spirituális kockázati tényezők közül a legfontosabb a reménytelenség, amely a Beck Reménytelenség Skálával viszonylag könnyen vizsgálható a mindennapi gyakorlatban. Ezt követően a szerző felsorol számos olyan jelet és tünetet, amelyeket mind a szülőknek, mind a tanároknak fel kellene ismerni és kezelni kellene, majd ajánlásokat tesz az öngyilkosságok csökkentése érdekében.

Kulcsszavak: öngyilkosság, adolescens kor, prevenció, kockázati- és védőtényezők, reménytelenség, spiritualitás, holisztikus szemlélet.