CURRENT PROBLEMS OF PSYCHIATRY 2010, 11, 1, 47-52

Experience of domestic violence and suicidal behaviour in adolescents

Marta Makara-Studzińska, Anna Koślak

Department of Psychiatry Medical University in Lublin

Summary

Aim: From year to year there has been a continuous increase in suicide attempts by adolescents accompanied by lowering of the age of suicide attempters. The subject literature among the factors linked to suicide among the teenager group, includes the experience of abuse during childhood. The aim of this work was to find the relationship between the experience of abuse during childhood and suicidal behaviour during the period of adolescence as well as to attempt to provide an answer to the question whether in the adolescent suicide attempters there are typical types of the violence experienced. Method: The examined group of suicide attempters included 99 persons as compared to the control group consisting of 301 persons. The adolescents who made suicide attempts underwent examination within 3 days' period after the attempt. In order to evaluate physical, emotional and sexual abuse as well as general traumas experienced during their childhood the Early Trauma Inventory was used in this work.

Results: The results obtained in the work showed that the adolescents who made suicide attempts had experienced all forms of abuse in their childhood. In most cases, disregarding their sex, they were victims of physical violence or combined with emotional violence. No statistically significant differences occurred as regards the experience of various forms of abuse between the subgroup of adolescents after the first suicide attempt and the subgroup after a consecutive attempt.

Conclusions: The results presented here may be used for designing anti-suicidal strategies and programmes as well as organising support groups for the adolescents who experienced violence in their childhood.

Key words: suicide, adolescents, experience of domestic violence

Introduction

In recent years there has been a dramatic increase in suicide attempts among adolescents accompanied by a gradual lowering of the age threshold of adolescent suicide attempters [1,2]. Between the years 1950 and 1995 there was a 60% increase of the rate of suicide amongst adolescents, which was particularly noticeable among young men [3]. In Poland in the period from 1990 – 2000 the suicide rate underwent an increase by 15%, out of which 30% of attempts occurred in the age group up to 19 years of age [4]. In the light of the above data suicide presents not only a crucial medical and psychological problem, but also, due to its scale, it is a serious social problem.

There are a number of factors which add to the dramatic increase in suicide rate among adolescents. The attempts to get to know them with a purpose of determining the relationship among them are still being carried out. Some research indicates the relationship between suicidal behaviour among adolescents and experience of domestic violence in their childhood [5-12], although these works focus mainly on the problem of influence of physical and sexual abuse on suicidal behaviour, concentrating in a lesser degree on the issue of emotional abuse and its relationship to suicide.

The aim of this work was to find a relationship between the experience of abuse during childhood and suicidal behaviour during adolescence as well as an attempt to answer the question whether it is possible to differentiate characteristic types of abuse experienced among the adolescent group who made suicide attempts.

Method and examined group

The research was carried out in 2007 at the Toxicological Centre in Lublin, the Institute of Agricultural Medicine and the Department of Psychiatry of the Medical University in Lublin. Before the research was carried out, the approval of the Bioethical Commission of the Medical University was obtained regarding the execution of a clinical project. The research was started after obtaining permission of the centre director, manager of head of the department in which the research was carried out, the written permission obtained from both parents or one parent of the examined person as well as the written consent of the examined person.

The following selection criteria for the examined group were adopted: a suicide attempt made within the last 3 days, lack of symptoms of serious somatic diseases and lack of symptoms of the P.N.S. organic damage, age 14-19 years, lack of symptoms of mental retardation and psychiatric disease, lack of addiction to psychoactive drugs. The control group consisted of 301 persons, who complied with the selection criteria of the examined group without an interview towards suicidal behaviour.

The examined group of suicide attempters included 99 persons and was made up of 57 girls and 42 boys. The respondents from the suicide attempters group were divided into two subgroups: persons after the first suicide attempt or after a consecutive

suicide attempt. The group after the first attempt included 18 boys (33,96%) and 35 girls (66,04%), whereas the group after a consecutive attempt consisted of 24 boys (52,17%) and 22 girls (47,83%) (Table 1).

Table 1. Characteristics of the examined group due to its number and sex

Evenined groups	Subgroups	Nun	nber	Во	oys	Girls		
Examined groups		N	%	N	%	N	%	
Suicide attempt	First	53	53,54	18	33,96	35	66,04	
	Consecutive	46	46,46	24	52,17	22	47,83	
	Total	99	100,00	42	42,42	57	57,58	
Control group		301	100,00	144	47,84	157	52,16	

The adolescents group after the first suicide attempt consisted of 81,13% of persons aged 16-17 years, 11,32% of persons aged 14-15 years and 7,55% aged 18-19 years. The majority of the subgroup after consecutive suicide attempts was constituted by adolescents aged 16-17 years, 39,13%

aged 18-19 years whereas 2,71% aged 14-15 years (Table 2). The most numerous group in the subgroup of the persons after the first suicide attempt were high school students. The similar data were observed in the subgroup after consecutive suicide attempts (Table 3).

Table 2. Characteristics of the examined group due to their age

Examined groups	Subgroups	14-15 yea	ars of age	16-17 ye	ars of age	18-19 years of age		
		N	%	N	%	N	%	
Suicide attempt	First	6	11,32	43	81,13	4	7,55	
	Consecutive	1	2,17	27	58,70	18	39,13	
	Total	7	7,07	70	70,71	22	22,22	
Control group		39	12,96	225	74,75	37	12,29	

Table 3. Education of the examined group

Examined groups	Subgroups	Primary school		Junior high school		High school		Technical school		Basic voca- tional school	
		N	%	N	%	N	%	N	%	N	%
Suicide attempt	First	6	11,32	18	33,6	23	43,00	2	3,77	4	7,55
	Consecutive	0	0,00	20	43,8	23	50,00	3	6,52	0	0,00
	Total	6	6,06	38	38,8	46	46,60	5	5,05	4	4,04
Control group		12	3,99	87	28,0	202	67,10	0	0,00	0	0,00

Most of the examined persons came from provincial cities. A statistically significant difference was found as regards the income source of the families between the analysed groups. The families of adolescents from the suicide attempters group in the majority of cases lived on social benefits or on social welfare. Moreover, a significant difference was observed as regards the family circumstances of the compared groups. The suicide attempters more frequently came from a broken family the prevailing type being separation without a divorce. In the families of suicide attempters psychiatric diseases were more frequent.

In the work the Early Trauma Inventory by Bremner was used. The ETI is a reliable and accurate tool for measuring physical, emotional and sexual abuse as well as general childhood traumas. It is an interview consisting of 56 elements, which assesses traumatic experiences before the age of 18. Each ETI category is presented in an open way. The examined persons are asked in a general way about their experiences related to a specific abuse category (e.g. physical or emotional abuse), then a series of structuralised questions is asked referring to individual categories. The ETI questionnaire takes into account a wide range of abuse related experiences, the questions to which an affirmative answer is achieved are completed with the information regarding the frequency, duration and perpetrator. The ETI assesses the frequency of abuse experiences in various developmental or school periods, it also assesses the age of the individual when the abuse started and when it ceased as well as the impact of this experience on the person.

The Polish adaptation of the ETI was carried out by a research team (Śpila, Makara-Studzińska, Chuchra, Grzywa) from the Department of Psychiatry of the Medical University in Lublin in the years 2002 - 2005. By courtesy of Prof. Bremner from the Department of Psychiatry of Emory University School of Medicine in Atlanta, USA, who made the Inventory designed by his team available to us, two versions of the Inventory i.e. the report and selfreport version were translated into Polish. Afterwards, the translated text was analysed as regards its comprehensiveness and clarity of questions, adequacy to Polish circumstances taking into account cultural differences. On many occasions the Inventory's content was consulted with experienced psychiatrists and clinical psychologists and then the suggested stylistic corrections were introduced, making a joint decision how the questions' content of the original version should be rendered without modifications to the sense of sentences. After the final determination of the Inventory content, the self-report version was chosen, which under American reality turned out to be as reliable, credible and accurate as the report version (the values of the Pearson correlation coefficient for the report and self-report version were r = 0.96; df = 12; p = 0.0001). Both versions are almost identical as regards their content the only difference being the first subscale, which has 7 questions more in the self-report versions.

The early Trauma Inventory in the Polish version consists of 62 questions divided into 4 parts: overall traumatic experience – 24 questions (in the self-report version 31 questions), physical abuse – 9 questions,

emotional abuse – 7 questions, sexual abuse – 15 questions. The intensity of all of these abuses is assessed for each developmental period: preschool period (0-5 years of age), primary school (6-12 years of age) and puberty period (13-18 years of age). In the second subpoint the frequency of occurrences is assessed in the scale ranging from once (1) a year to every day. In the third subpoint the perpetrator of the abuse is to be identified. Each subscale ends with the assessment of the individual influence on the person as measured in the 7 point Likert scale ranging from 0 – extremely negative influence to 6 – extremely positive influence as regards emotions, social functioning and social relationships. The Polish adaptation of the Inventory achieved high values of the Cronbach's alpha (internal cohesion and compatibility coefficient), which are sufficient to consider this tool reliable.

Results

In both groups the experience of abuse was analysed using the Early Trauma Inventory. As regards the childhood trauma differences occurred in all Inventory categories between the examined adolescents groups. Differences were achieved in all trauma scales: general, physical, emotional, sexual trauma. The adolescents from the suicide attempters group more frequently experienced all forms of abuse, the domineering abuse type being the combination of physical and emotional abuse characterised by a similar intensity (Table 4). No statistically significant sex interaction effects were found.

Table 4. Differences between adolescents from the suicide attempters group and control group as regards the early childhood trauma measured using the Early Trauma Inventory

Scales	SUI		GK		The U-Mann Whitney test	
Scales	M	SD	M	SD	Z	p.i.
General stress experiences	63,56	42,75	9,42	7,94	11,78	***
Physical abuse	353,59	337,12	61,32	54,00	7,23	***
Emotional abuse	297,33	214,64	68,16	53,35	11,06	***
Sexual abuse	9,48	19,26	0,78	2,38	3,61	***
Index of abuse results	723,96	373,61	139,81	78,93	14,08	***

* $p \le 0.05$; ** $p \le 0.01$; *** $p \le 0.001$

No significant statistical differences occurred as regards the experience of various forms of abuse between the subgroup of adolescents after the first suicide attempt and the subgroup after a consecutive suicide attempt among examined girls and boys.

The examined persons most often came from broken families with the prevailing type being separation without divorce. They did not obtain support from their parents, since their conflicted parents did not devote enough attention to their children. In many cases these persons were left to themselves and had to cope with troubles and problems beyond their can. It often happened that they also felt guilty for the family break-up and blamed themselves for the existing situation. In the families of the examined adolescent suicide attempters psychiatric diseases were more common.

Discussion

The results of our research are widely reflected in subject literature. The review of research carried out by Evans et al. [5,6] points to the relationship between the experience of abuse and suicidal behaviour – both the review analysing the risk factors of suicidal behaviour and the one devoted to the relationship of these forms of behaviour and abuse. In this place it should be stressed that according to the first of these reviews physical (as well as sexual) abuse were included among the factors as to which there is strong evidence of their relationship to suicide attempts by adolescents. It should be added that the results of the multiple factor analysis from two tests regarding the relationship between the experience of physical abuse and suicidal behaviour among adolescents indicate that this relationship can be direct [7,8]. Similarly, Prino and Peyrot [9], Pearce and Martin [10], Lewis and Santa [11] Mina and Gallop [12] demonstrate that the victims of physical abuse can commit selfmutilation and show suicidal behaviour. In the tests carried out by Barber et al. [13] the victims of physical abuse were discerned by the personnel of the psychiatric hospital as more self-destructive as compared to other patients. Mirucka and Niesiobędzka [14] identify one of the possible scenarios leading to suicide attempts by the victims of physical abuse in due to their cognitive deficiencies. Limited possibilities of cognitive functioning which are often accompanied by a great fear of failure, have a negative impact on their school performance and consequently it leads to further physical punishment. Thus a vicious circle is created from which the only form of escape seems to be suicide. In this context self-destructive behaviour in the victims of abuse, including using psychoactive drugs or suicidal behaviour, can be viewed as a particular way of coping [15], as tension relieving behaviour [16], aiming at relieving negative internal states [17]. Salter names suicidal behaviour as a particular way of psychical pain control used by the victims of sexual abuse. This author, however, devotes the same amount of attention to using alcohol and drugs by these persons to ease unpleasant sensations [18].

The problem of emotional abuse experience in the early childhood and its relationship to suicide in further life is not widely reflected in research. In the summary of trend analysis in the works devoted to violence in relation to children throughout the 22 years' period, Behl et al. [19] find out that 32,7% of the articles concerned sexual abuse, 20,2% physical abuse and only 4,2% emotional abuse. While speculating over the causes of underrepresentation of emotional violence it was shown that it is much easier to operationalise physical and sexual abuse for research purposes. The views differ as to what makes this type of abuse, it is seldom reported by the victims, its symptoms are not specific and there are no pathognomonic effects during the examination [20]. Focussing on the child's sexual and physical abuse may be also the reaction to the publicity it gets in the public media [19].

In our research the prevailing type of abuse was the combination of physical and emotional abuse characterised by the similar intensity level. This type of abuse consists in using at the same time punishment involving physical strength and various forms of verbal aggression and hostility towards the child. Among the adolescent suicide attempters who were examined by us, the victims of such methods constituted 46,43% of the examined persons. Other researchers also point to the coexistence of various forms of abuse. Ney et al. [21] formulate a hypothesis that various forms of maltreatment rarely occur as an isolated, one-off cases. The authors [21] say that only 5% of the examined persons had to do with individual, isolated cases of abuse or negligence, which means that it is a mistake to treat the child as the victim of only one form of maltreatment. Similarly, Farmer and Owen [22] inform that in the majority of children entered in the Protection Register more than one form of maltreatment was found.

The subject literature shows that the increase in the number of abuse types meant an increase in the number of negative results for physical health [23] as well as psychical health [24], which is indicated by psychological profiles of the persons who committed suicide prepared posthumously, where they are presented as individuals who are driven by impulses and who act under the influence of the sense of lack of values and hopelessness [25]. It should be stressed that the emotional sphere of a young person is characterised by a great deal of lability, opposition, intensity, which adds to extreme experience of often unexpected occurrences as regards their intensity, depth and dramatics, which can be considered forms of stress [26]. For a long time the attention of researchers has been drawn to the so-called adolescent suicidal behaviour, which is linked to temporary personality disorders resulting from psychical and physical development of an individual, assuming new social roles, which can result in conflicts between the individual and the surrounding world. Consequently, these conflicts and inability to overcome them add to the sense of helplessness, psychic breakdown, withdrawal, apathy, which in turn can lead to the willingness to die.

A special group of suicide causes are typical for adolescence conflicts related to the world outlook resulting from the search of the sense of life [27]. The group of immediate suicide causes includes also some situations which are perceived as unfair and harmful (it should be noted that this opinion does not have necessarily to correspond to their objective evaluation); ranging from a family row, parting with friends, breaking up of a relationship, school failure to a serious somatic disease, death of a beloved or important person, experience of abuse [28,29].

In the family context suicide is an ultimate form of drawing the parents' attention to oneself. A lot of research from the 1980s showed the relationship between suicidal behaviour of adolescents and their parents' divorce [30-34]. On the other hand, the conflict between parents seems to be a stronger predictor of such forms of behaviour than the divorce: in the overview of research carried out by Kelly which was devoted to the situation of the children brought up in conflicted families and by single parents, conflicts and rows at home turned out to be directly linked to suicidal behaviour [35]. The result obtained in the own research may be related to the fact that in case of separation the conflict intensity in the family could be stronger. It is not strange then that the examined persons stressed that they could not count on their parents' support. Moreover, they indicated as well the lack of support from their siblings. The persons who were examined by us did not get support from their distant relatives, clergymen or teachers, either. The importance of social support as a factor protecting young people against suicidal behaviour was stressed while relating to the risky behaviour in general. In this place it should be noted that the results of a vast amount of research point to a significant relationship between good communication in the family: good communication and the sense of being understood by other family members turned out to be related to the lowered risk of suicide attempts rate among adolescents [36-39], whereas low support level obtained from their parents and peers forecast suicide attempts among young people [40,41]. The overview of the research carried out by Evans et al. [5], which has been referred to above, included the lack of support from the parents and bad relationships with the peers to the factors related to suicide attempts by adolescents.

In the families of the adolescents examined by us mental diseases were more common, which corresponds to the results achieved by other authors, who found the relationship between the occurrence of mental diseases in a family and suicide attempts in adolescents [42,43,44]. In a majority of cases the siblings did not have a history of suicide attempts. According to many authors first degree relatives of the persons who committed suicide and suicide attempters are exposed to the risk of suicidal behaviour [45]. The research carried out by Brent et al. [28] showed that children whose parents are suicide attempters and also have siblings showing suicidal behaviour are exposed to a high suicide risk. However, the strongest suicidal behaviour transmitting predictor in this case was the impulsive behaviour shown by the offspring [46].

Conclusions

The analysis of the research results obtained allows us to formulate the following conclusions. The adolescent suicide attempters from the population examined by us have encountered severe criticism from their parents and lack of acceptance in the early childhood. They experienced all forms of abuse during their childhood. In most cases, disregarding their sex, they were victims of physical abuse or physical abuse combined with emotional one. No significant statistical differences were found as regards experiencing various forms of abuse between the subgroup after the first suicide attempt or a consecutive attempt.

The results of our research allow us to formulate a conclusion regarding the necessity to provide comprehensive psychiatric and psychological support to the adolescents who experience domestic violence in their early childhood. The results presented in this work can be used to design antisuicidal strategies, prevention programmes and support groups for the adolescents showing a great risk of suicide attempts who experienced abuse in their early childhood.

References

- Diekstra F.W., Garnefski N. On the nature, Magnitude, and Causality of Suicidal Behaviors: An International Perspective. Suicide Life Threat. Behav., 1995; 25(1): 36-57.
- Jabłoński R. Młodzi samobójcy są wśród nas, czy potrafimy ich rozpoznawać? W: B. Hołyst, M. Staniaszek, M. Binczycka-Anholcer red., Samobójstwo. Warszawa: Polskie Towarzystwo Higieny Psychicznej 2002; 189-195.
- De Leo D. Struggling Against Suicide. The Need for an Integrative Approach. Crisis. 2002; 1: 23-31.
- Gmitrowicz A., Szymczak W., Kropiwnicki P., Rabe-Jabłońska J. Gender influence in suicidal behaviour od Polish adolescents. Eur. Child. Adolesc. Psychiatry, 2003; 12: 205-212.
- Evans E., Hawton K., Rodham K. Factors associated with suicidal phenomena in adolescents: A systematic review of population-based studies. Clin. Psychol. Rev., 2004; 24: 957-979.
- 6. Evans E., Hawton K., Rodham K. Suicidal phenomena and abuse in adolescents: a review of epidemiological studies. Child Abuse Negl., 2005; 29(1): 45-58.
- Blum R.W., Harmon B., Harris L., Bergeisen L., Resnick M.D. American Indian-Alaska Native youth health. JAMA., 1992; 267: 1637-1644.
- Grossman D.C., Milligan B.C., Deyo R.A. Risk factors for suicide attempts among Navajo adolescents. Am. J. Public. Health., 1991; 81: 870-874.
- 9. Prino C.T., Peyrot M. The effects of child physical abuse and neglect on aggressive, withdrawn, and prosocial behavior. Child Abuse Negl., 1994; 18: 871-884.
- Pearce C.M., Martin G. Predicting suicide attempts among adolescents. Acta Psychiatr. Scand., 1994; 90: 324-328.
- 11. Lewis G. Continuum of self-destructiveness. Lancet, 1998; 351: 81-82.
- 12. Santa Mina E.E., Gallop R.M. Childhood sexual and physical abuse and adult self-harm and suicidal behaviour: a literature review. Can. J. Psychiatry, 1998; 43: 793-800.

- 13. Barber C.C., Colson D.B., McParland M.Q., O'Malley F., Pope K.K., Coyne L. Child abuse and treatment difficulty in inpatient treatment of children and adolescents. Child Psychiatry Hum, Dev., 1994; 25(1): 53-64.
- Mirucka B., Niesiobędzka M. Gdy zabraknie profesjonalistów... Psychoterapia, 2000; 1: 89-97.
- 15. Burt M.R., Katz B.L. Coping strategies and recovery from rape. Ann. N. Y. Acad. Sci., 998; 528: 345-358.
- 16. Briere J.N. Child abuse trauma: theory and treatment of lasting effects. Sage: Newbury Park; 1992.
- Runtz M.G., Schallow J.R. Social support and coping strategies as mediators of adult adjustment following childhood maltreatment. Child Abuse Negl., 1997; 21(2): 211-226.
- Salter A.C. Pokonywanie traumy. Jak zrozumieć i leczyć dorosłe ofiary wykorzystywania seksualnego w dzieciństwie. Poznań: Media Rodzina; 2003.
- Behl L.E., Conyngham H.A., May P.F. Trends in child maltreatment literature. Child Abuse Negl., 2003; 27: 215-229.
- 20. Thompson A.E., Kaplan C.A. Childhood emotional abuse. Br. J. Psychiatry, 1996; 168: 143-148.
- Ney P.G., Fung T., Wickett A.R. Child neglect: The precursor to child abuse pre- and perinatal psychology. Pre- & Perinatal Journal. 1993; 8(2): 95-112.
- 22. Farmer E., Owen M. Child protection practice: Private risk and public remedies decision making, intervention and outcomes. London: Protection Work HMSO; 1995.
- 23. Moeller T.P., Bachmann G.A., Moeller J.R. The combined effects of physical, sexual and emotional abuse during childhood: Long-term health consequences for women. Child Abuse Negl., 1993; 17: 623-640.
- Higgins DJ, McCabe MP. Multi-type maltreatment and the long-term adjustment of adults. Child Abuse Rev., 2000; 9: 6-18.
- 25. Feldman M, Wilson A. Adolescent suicidality in urban minorities and its relationship to conduct disorders, depression, and separation anxiety. J. Am. Acad. Child Adolesc. Psychiatry, 1997; 36: 75-84.
- Rostowski J. Samobójstwa młodzieży a antyspołeczne formy jej zachowania. W: B. Hołyst, M. Staniaszek, M. Binczycka-Anholcer red., Samobójstwo. Warszawa: Polskie Towarzystwo Higieny Psychicznej 2002; 132-151.
- 27. Frankl V.E. Homo patients. Warszawa; 1971.
- Brent D.A., Perper J.A., Moritz G., Baugher M., Schweers J., Roth C. Firearms and adolescent suicide: A community casecontrol study. Am. J. Dis. Child., 1993; 147: 1066-1071.
- Polskie Towarzystwo Suicydologiczne. Zapobieganie samobójstwom. Poradnik dla nauczycieli i innych pracowników szkoły. Genewa-Warszawa; 2003
- Stack S. The effects of marital dissolution on suicide. J. Marr. Fam., 1980; 42: 83-90.
- 31. Stack S. Divorce and suicide: a time series analysis, 1933-1970. J. Fam. Issues, 1981; 2: 77-90.

- 32. Trovato F. The relationship between marital dissolution and suicide: the Canadian case. J. Marr. Fam., 1986a; 48: 341-348.
- 33. Trovato F. A longitudinal analysis of divorce and suicide in Canada. J. Marr. Fam., 1986b; 49: 193-203.
- Spirito A., Brown J., Overholser J., Fritz G. Attempted suicide in adolescence. A review and critique of literature. Clin. Psych. Revi., 1989; 9: 335-363.
- Kelly J.B. Children's adjustment in conflicted marriage and divorce: A decade review of research. J. Am. Acad. Child Adolesc. Psychiatry, 2000; 39: 963-973.
- Shaffer D., Vieland V., Garland A., Rojas M., Underwood M., Busner C. Adolescent suicide attempters. Response to suicide-prevention programs. JAMA, 1990; 264: 3151-3155.
- 37. Wagner B.M., Cole R.E., Schwartzman P. Psychosocial correlates of suicide attempts among junior and senior high school youth. Suicide Life Threat. Behav., 1995; 25: 358-372.
- Rey Gex C., Narring F., Ferron C., Michaud P.A. Suicide attempts among adolescents in Switzerland: Prevalence associated factors and comorbidity. Acta Psychiatr. Scand., 1998: 98: 28-33
- Wagman Borowsky I., Resnick M.D., Ireland M., Blum R.W. Suicide attempts among American Indian and Alaska native youth. Arch. Pediatr. Adolesc. Med., 1999; 153: 573-580.
- de Jong M. Attachment, individuation, and risk of suicide in late adolescence. J. Youth Adolesc., 1992; 21: 357-373.
- 41. Lewinsohn PM, Rohde P, Seeley JR. Psychosocial risk factors for future adolescent suicide attempts. J. Consult. Clin. Psychol., 1994; 62: 297-305.
- 42. Wagner B.M. Family risk factors for child and adolescent suicidal behavior. Psychol. Bull., 1997: 121: 246-298.
- Johnson B.A., Brent D.A., Bridge J., Connolly J. The familial aggregation of adolescent suicide attempts. Acta Psychiatr. Scand., 1998; 97: 18-24.
- Meltzer H., Harrington R., Goodman R., Jenkins R. Children and adolescents who try to harm, hurt or kill themselves. London: Office for National Statistics; 2001.
- Mann JJ, Brent DA, Arango V. The neurobiology and genetics of suicide and attempted suicide: a focus on the serotonergic system. Neuropsychopharmacology, 2001. 24: 467-477.
- Brent DA, Oquendo M, Birmaher B, Greenhill L, Kolko D, Stanley B, Zelazny J, Brodsky B, Firinciogullari S, Ellis SP, Mann JJ. Peripubertal suicide attempts in offspring of suicide attempters with siblings concordant for sucidal behavior. Am. J. Psychiatry, 2003; 160(8): 1486-1493.

Address for correspondence

Marta Makara-Studzińska Klinika Psychiatrii UM w Lublinie ul. Głuska 1, 20-442 Lublin e-mail: mmakara@go2.pl