

Alexithymia in Adolescents: A Review of Literature

Remus Runcan, Postdoc Researcher, West University, Timisoara, remus.runcan@e-uvv.ro

Abstract

Alexithymia has been extensively studied for almost five decades now all over the world, except for Romania. This paper presents an overview of literature in the field of alexithymia, in general: it provides the etymology of the word **alexithymia**, its various definitions, its main types (primary, secondary, organic, and normative), and its features. **Alexithymia in adolescents** has been studied from different perspectives (*behavioural, biological, communicational, epistemological, legal, medical, neurobiological, neuropsychological, neuropsychiatric, neuroscientific, psychiatric, psychological, and psychosomatic*), in relation to associated conditions (*antisocial behaviour (including ADHD), anxiety, delinquency, depression, dissociation, eating disorders, generalised anxiety disorder, other mental disorders, psychiatric symptoms, somatic symptom disorder, suicide risk*) or behaviours (*aggressive behaviour, deliberate self-harm, risk of problematic Internet use, cognitive reappraisal strategies, borderline personality disorder, anxiety and depression*). Researchers have focused on alexithymia and age, gender and culture, tried to identify possible causes of this disorder (*childhood family environment, digital / video game addiction or gaming disorder or Internet addiction or Internet gaming disorder, Internet-related disorder, disadvantageous living conditions in childhood, early life experiences, emotional abuse and neglect, emotional difficulties with caregivers during childhood, lack of social support, parents with alcohol-use problems, systematic abuses and/or abandonment in childhood or early adolescence*) and predictors of alexithymia (*attachment style, children's perception of a neglectful parenting style, deficit in speech development, less cognitive capacity, low self-control of emotions, parents' alexithymic traits*). The article is a plea in favour of explicit assessments of alexithymia before initiating psychological treatments and adequate address of adolescents' mood disorders.

Keywords: alexithymia, adolescence, disorder

1. Alexithymia: Etymology, Definition, Types, and Features

Alexithymia is a term coined by Nemiah & Sifneos (1970, in Bagby, Taylor & Ryan, 1986) from the Greek prefix *a-* 'lack' and Greek words *lexis* 'word', and *thymos* 'emotion'.

Alexithymia has been defined in various ways: "a clinical construct referring to poor ability to identify and describe emotions, and poor interoceptive awareness" (Sifneos, 1972, in Garisch & Wilson, 2010, 152), *a cognitive* [identifying, analysing and verbalising feelings] *and affective* [difficulty fantasising and difficulty emotionalising] *disturbance* "that affects the way individuals experience and express their emotions" (Bagby, Taylor & Ryan, 1986, 287); "the human equivalent to animal models of stress induced analgesia [the inability to feel pain]" (Stuppy & Shipko, 1994, 30); "a multidimensional construct" (Luminet *et al.*, 2000, 9); "not a diagnosis, but a construct useful for characterizing patients who seem not to understand the feelings they

obviously experience, patients who seem to lack the words to describe these feelings to others” (Muller, 2000, 1); “a construct [an idea or theory containing various conceptual elements, typically one considered to be subjective and not based on empirical evidence] useful for characterizing patients who seem not to understand the feelings they obviously experience, patients who seem to lack the words to describe these feelings to others” (Muller, 2000, 1); “a dimensional construct” (Parker *et al.*, 2008).

Muller (2000, 1) explained **alexithymia** in the most comprehensive way possible: “Many individuals with alexithymia have somatic [relating to the body, especially as distinct from the mind] complaints. Considerable empirical evidence links somatic complaints to prolonged states of emotional arousal, and the concomitant physiological arousal, with susceptibility to certain somatic disorders. Clearly, someone who cannot verbally express negative emotions will have somatic disorders trouble discharging and neutralizing these emotions, physiologically as well as psychically (Gavrila, 2008). All feelings, whether normal or pathological, are ultimately bodily feelings. Those with alexithymia lack a lived understanding of what they experience emotionally. From the perspective of development, alexithymia implies a glitch in the process that permits the expression of feelings in words that capture the body's involvement in these feelings. Perhaps the child's mother failed to sufficiently encourage a language of feelings [...]. Alternatively, emotional trauma later in life may compromise the connection between what is felt and what can be grasped about this feeling and can be put into words, particularly if that link were tenuous to begin with.” However, MacLaren (2006, 140) opines that **alexithymia** should be understood “as an effective and expressive engagement in the world, rather than as the total lack of emotional experience that it seems to be”.

There are several **types of alexithymia**:

- **Primary alexithymia** is the result of developmental genetic and familial factors, a vulnerability factor for mental illness (Messina, Beadle & Paradiso, 2014);
- **Secondary alexithymia** is a consequence of mental illness that may have both psychological and/or somatic mechanisms, “a condition occurring later in life either due to psychological trauma, or as a direct insult to brain regions supporting emotion processing and awareness” (Messina, Beadle & Paradiso, 2014);
- **Organic alexithymia** or **acquired emotional blindness** is a subtype of *secondary alexithymia*, “a clinically and theoretically useful construct for furthering understanding of alexithymia and the occurrence of alexithymic symptoms in patients with acquired brain injury (ABI)” (Becerra, Amos & Jongelenis, 2002; Messina, Beadle & Paradiso, 2014; Gavrilă & Gavrilă, 2010).

Other specialists also speak of **normative male alexithymia** “the inability of men to put emotions into words posited to result from traditional masculine role socialization, and reflected in the endorsement of and conformity to traditional masculine norms” (Karakis & Levant, 2012; Levant, Allen & Lien, 2014).

Researchers have dismantled at least one of the several myths related to alexithymia in adolescents: alexithymia is not related to acne vulgaris (Sunay *et al.*, 2011).

Alexithymia has been characterized in extremely diverse ways. Thus, Bagby, Taylor & Ryan (1986, 287) see it as “a difficulty in identifying feelings and in distinguishing between feelings and bodily sensations, as a difficulty in describing feelings to other people, as an impoverished fantasy life, and as a preference for focusing on external events rather than inner experiences”; for Taylor, Bagby & Parker (1991, 156), it is “a deficit in the cognitive processing and regulation of undifferentiated and poorly regulated emotional states”; according to Bermond

& Vorst (1994, in Luminet *et al.*, 2000, 12), it is “a difficulty in identifying feelings and in describing feelings, an externally-oriented thinking, a reduced fantasy, and a difficulty emotionalizing”; in Taylor’s (1994, in Kennedy & Franklin, 2002, 158) opinion, “a difficulty describing feelings, difficulty distinguishing between feelings and the bodily sensations that accompany emotional arousal, lack of introspection, lack of social conformity, impoverished fantasy life and poor dream recall”; in Larsen *et al.*’s (2003) opinion, a cognitive deficit (ability to communicate with others, capacity to describe feelings, and preference for describing events in detail), emotional deficit (blunting of emotional experiences, decreased capacity for fantasy, decreased capacity for use of symbols, emotional numbness, impairment in the identification of facial and vocal emotional expression, and mental emotional indifference); for Hesse & Floyd (2010), “a deficit in the ability to build and maintain relationships”; according to FeldmanHall, Dalgleish & Mobbs (2012), a decrease of altruism in real social decisions; for Gatta *et al.* (2016), an intergenerational transmissibility (from both parents). Moreover, there is an inverse association between alexithymia constructs and emotional intelligence (Schutte *et al.*, 1998).

2. Alexithymia in Adolescents: Approaches, Associated Conditions, Research Variables, Causes, and Predictors

Alexithymia in adolescents has been studied from various perspectives: *behavioural* (Schimmenti *et al.*, 2017), *biological* (Moriguchi & Komaki, 2013; Koh *et al.*, 2015), *communicational* (Karakis & Levant, 2012), *epistemological* (López-Muñoz & Pérez-Fernández, 2020), *legal* (Hornsveld & Kraaimaat, 2011), *medical* (Balottin *et al.*, 2014; Scimeca *et al.*, 2014; Bolat *et al.*, 2017; Schimmenti *et al.*, 2017; Peres *et al.*, 2018), *neurobiological* (Larsen *et al.*, 2003; Morie *et al.*, 2016), *neuropsychological* (Henry *et al.*, 2006; Hogeveen *et al.*, 2016), *neuropsychiatric* (Maganuco *et al.*, 2019), *neuroscientific* (Goerlich, 2018), *psychiatric* (Sayar *et al.*, 2005; Seo *et al.*, 2009; Karukivi, 2011; Sunay *et al.*, 2011; Deborde *et al.*, 2012; Samson *et al.*, 2014; Gatta *et al.*, 2016), *psychological* (Zimmermann, 2006; Garisch & Wilson, 2010; Oskis *et al.*, 2013, 97; Bolat *et al.*, 2017; Paniccia *et al.*, 2017; Musetti *et al.*, 2019; Yavuz *et al.*, 2019), and *psychosomatic* (Joukamaa *et al.*, 2007).

Alexithymia in adolescents may be associated with *antisocial behaviour (including ADHD)* (“aggressive, impulsive, and often violent actions that violate protective rules, conventions, and codes of a society” – *Psychology Dictionary*) (Thorberg *et al.*, 2009), with *anxiety* (“a feeling of worry, nervousness, or unease about something with an uncertain outcome” – *Lexico*) (Thorberg *et al.*, 2009; Karukivi, 2011; Bolat *et al.*, 2017; Gavrilă-Ardelean, 2014), with *delinquency* (“minor crime, especially that committed by young people” – *Lexico*) (Zimmermann, 2006), with *depression* (“a mental condition characterized by feelings of severe despondency and dejection, typically also with feelings of inadequacy and guilt, often accompanied by lack of energy and disturbance of appetite and sleep” – *Lexico*) (De Berardis *et al.*, 2008; Thorberg *et al.*, 2009; Garisch & Wilson, 2010; Karukivi, 2011; Bolat *et al.*, 2017; De Berardis *et al.*, 2017), with *dissociation* (“separation of normally related mental processes, resulting in one group functioning independently from the rest, leading in extreme cases to disorders such as multiple personality” – *Lexico*) (Aayar *et al.*, 2005; Sayar *et al.*, 2005), with *eating disorders* (“any of a range of psychological disorders characterized by abnormal or disturbed eating habits (such as anorexia nervosa, [bulimia nervosa, eating disorder not otherwise specified])” – *Lexico*) (Karukivi, 2011; Nowakowski, McFarlane & Cassin, 2013; Peres *et al.*, 2018), with *generalised anxiety disorder* (“a disorder characterized by excessive or unrealistic anxiety about two or more aspects of life

(work, social relationships, financial matters, etc.), often accompanied by symptoms such as palpitations, shortness of breath, or dizziness” – *Lexico*) (Paniccia *et al.*, 2017), with other *mental disorders* (“any clinically significant behavioural or psychological syndrome characterized by distressing symptoms, significant impairment of functioning, or significantly increased risk of death, pain, or other disability [such as alcohol and substance misuse, Asperger syndrome, autism, personality disorders]” – *Medical Dictionary*) (Thorberg *et al.*, 2009; Karukivi, 2011), with *psychiatric symptoms* (Gatta *et al.*, 2016), with *somatic symptom disorder* (“a form of mental illness that causes one or more bodily symptoms, including pain [such as chronic fatigue syndrome, congenital cardiac malformation, tension-type headache, Type I diabetes]” – *WebMD*) (Karukivi, 2011), with *suicide risk* (De Berardis *et al.*, 2017, Sârbu, 2016); it may also contribute to *aggressive behaviour* in teenage violent psychiatric outpatients (Hornsveld & Kraaimaat, 2011), facilitate *deliberate self-harm* (“deliberate injury to oneself, typically as a manifestation of a psychological or psychiatric disorder” – *Lexico*) in bullied adolescents (Garisch & Wilson, 2010, Panescu & Sârbu, 2019), increase the *risk of problematic Internet use* in late adolescence in females with problems with affect regulation (Bolat *et al.*, 2017; Schimmenti *et al.*, 2017), make it difficult to generate *cognitive reappraisal strategies* (i.e., emotion regulation strategies involving the change of the trajectory of an emotional response by reinterpreting the meaning of the emotional stimulus) in autism spectrum disorder (Bird & Cook, 2013; Samson *et al.*, 2014), mediate the influence of attachment on the development of *borderline personality disorder* (“a personality disorder characterized by severe mood swings, impulsive behaviour, and difficulty forming stable personal relationships” – *Lexico*) (Deborde *et al.*, 2012), and present *anxiety and depression* in anorexia nervosa female adolescents (Peres *et al.*, 2018). For comparison, **alexithymia in adults** is present in *acquired brain injury patients* (patients with any type of brain damage that occurs after birth from anoxia, low to the head, brain tumour, encephalitis, near drowning, or stroke), *attention-deficit hyperactivity disorder patients* (patients with a condition characterized by inattention, hyperactivity, and impulsiveness), *autistic spectrum disorder patients* (patients with “a developmental disorder characterized by difficulties with social interaction and communication, and by restricted and repetitive behaviour”), *dissociative disorder patients* (patients with “mental disorders that involve experiencing a disconnection and lack of continuity between thoughts, memories, surroundings, actions and identity”), *frequent attenders (males) in primary health care*, *frequent use of medical care*, *mental health disorders patients*, *patients with medically unexplained symptoms* (patients with disorders that affect their mood, thinking and behaviour: addictive behaviours such as alcohol use, Internet- related disorder, mobile phone addiction (Nadolu&Nadolu, 2020), substance use; anxiety disorders; *depression disorders* – “mental illnesses characterized by a profound and persistent feeling of sadness or despair and/or a loss of interest in things that once were pleasurable”; eating disorders such as *anorexia nervosa*, *binge eating*, *bulimia nervosa* – “serious conditions related to persistent eating behaviours that negatively impact their health, emotions and ability to function in important areas of life”; schizophrenia), *mental health outpatients* (persons whose condition regard their psychological and emotional well-being), *patients with post-traumatic stress disorder* (patients with “a condition of persistent mental and emotional stress occurring as a result of injury or severe psychological shock, typically involving disturbance of sleep and constant vivid recall of the experience, with dulled responses to others and to the outside world”), *psychosomatic patients* (patients whose “physical illness or other condition is caused or aggravated by a mental factor such as internal conflict or stress”), and *traumatic brain injury patients* (patients with “an acquired brain injury caused by

external force such as a blow to the head sustained in a motor vehicle accident or fall, bullet or shrapnel entering through the skull”).

Alexithymia in adolescents has been studied on three continents and in ten countries, but not in Romania. A wide range of samples have been used in the surveys: in Belgium, France, and Switzerland, 95 female adolescents aged 13-18 (Deborde *et al.*, 2012); in Finland, 9432 adolescents aged 15-16 (Joukamaa *et al.*, 2007) and 729 adolescents aged 17-21 and (Karukivi, 2011); in France, 79 female adolescents aged 16.02 years on average (Peres *et al.*, 2018); in Italy, 155 adolescents aged 15.8 on the average (De Berardis *et al.*, 2008), 16 anorexic adolescents aged 13-17 (Balottin *et al.*, 2014), 600 adolescents aged 13-22 (Scimeca *et al.*, 2014), 49 adolescents aged 13-18 (Gatta *et al.*, 2016), 100 adolescents aged 13-18 (Paniccia *et al.*, 2017), 358 adolescents aged 18-19 (Schimmenti *et al.*, 2017), adolescents and young adults aged 15-30 (Musetti *et al.*, 2019); in New Zealand, 325 aged 16-23 (Garisch & Wilson, 2010); in South Korea, 290 adolescents aged 12-16 (Seo *et al.*, 2009); in Switzerland, 82 male adolescents aged 14-18 (Zimmermann, 2006); in the Netherlands, 75 adolescents aged 16 on the average (Hornsveld & Kraaimaat, 2011); in the U.K., 60 females aged 9-18 (Oskis *et al.*, 2013); in the U.S.A, 43 children and adolescents aged 8-20 (Samson *et al.*, 2014); and in Turkey, 173 adolescents aged 13-18 (Sayar *et al.*, 2005), 111 adolescents aged 15-25 (Sunay *et al.*, 2011), 444 adolescents aged 16.31 years on the average (Bolat *et al.*, 2017); 662 adolescents aged 15-17 (Yavuz *et al.*, 2019). As far as **gender differences** teenage alexithymia are concerned, research shows that girls are more alexithymic than boys (10% vs. 7%), but this difference is lower than that in adults (Joukamaa *et al.*, 2007); and that there is no gender difference in the prevalence of alexithymia in adolescents (Moriguchi *et al.*, 2007; Karukivi & Saarijärvi, 2014) or in Internet-addiction alexithymic adolescents (Scimeca *et al.*, 2014). From the **age** perspective, the rate of alexithymia among adolescents aged 15-16 is similar to that among adults (Joukamaa *et al.*, 2007), with 8.2% in females and 8.5% in males (Karukivi, 2011). There are no significant differences among the age-groups (adolescents vs. adults) (Seo *et al.*, 2009) or among the age-groups (younger vs. older adolescents) in the prevalence of alexithymia (Moriguchi *et al.*, 2007; Karukivi & Saarijärvi, 2014). The level of alexithymia in adolescents is lower compared with that of adults (Balottin *et al.*, 2014). There is a positive correlation between alexithymic adolescents and their fathers (Paniccia *et al.*, 2017). There is a single mention to the impact of **culture** on alexithymia in adolescents: according to Seo *et al.* (2009), “culture might influence components of the alexithymia construct, in particular the identification and communication of subjective feelings”.

The **causes of alexithymia** in adolescents are rooted in childhood and early adolescence: *childhood family environment* (Kench & Irwin, 2000); *digital / video game addiction or gaming disorder or Internet addiction* (Scimeca *et al.*, 2014) or *Internet gaming disorder* (“the problematic, compulsive use of video games that results in significant impairment to an individual's ability to function in various life domains over a prolonged period of time” – *Wikipedia*) (Yavuz *et al.*, 2019, Runcan, 2012); the *Internet-related disorder* (Musetti *et al.*, 2019) could be explained by the fact that “individuals who have difficulties identifying, expressing, and communicating emotions may overuse Internet gaming in order to regulate their emotions better and to fulfil their unmet social needs; [...] consequently alexithymia may result in high Internet Gaming Disorder severity” (Evren *et al.*, 2019, 232); *early life developmental experiences* including rules within the family of origin for the expression of emotions (Kennedy & Franklin, 2002); *emotional abuse and neglect*, i.e. child abuse / maltreatment, specifically emotional maltreatment (belittling, blaming, or rejecting) (Berenbaum, 1999; Brown *et al.*, 2018); *emotional difficulties with caregivers during childhood* (Oskis *et al.*, 2013); *improper living conditions in*

childhood: broken childhood home (Joukamaa *et al.*, 2007) or disrupted family structure (Zimmermann, 2006), living in a rural area, mother's low vocational education (Joukamaa *et al.*, 2007), maternal care (Thorberg, 2011), overprotective mother (Karukivi, 2011); *lack of social support* (Karukivi & Saarijärvi, 2014); *parents with alcohol-use problems* (Thorberg *et al.*, 2009; Morie *et al.*, 2016); *systematic abuses and/or abandonment in childhood or early adolescence* (Paplos *et al.*, 2012, and De Berardis *et al.*, 2019, in López-Muñoz & Pérez-Fernández, 2020).

It is important to identify **alexithymia** in due time because “[It] may be a risk factor of suicide in adolescent depression especially in the presence of maladaptive early schemata.” (De Berardis *et al.*, 2017, 3) There is a wide range of **predictors** (“a thing that predicts that something will happen in the future or will be a consequence of something” – *Lexico*) **of alexithymia**: the *attachment style*: “Fear of separation (characteristic of anxious attachment style) predicted both overall alexithymia scores and the specific alexithymic trait of ‘difficulty identifying feelings.’ Constraints on closeness (an avoidant attachment attitude) predicted ‘difficulty describing feelings.’ Low felt attachment to primary caregiver was a predictor of ‘externally oriented thinking’.” (Oskis *et al.*, 2013, 97); *children's perception of a neglectful parenting style* (Thorberg *et al.*, 2011; Gatta *et al.*, 2016, Runcan, Goian, 2014); a *speech development deficit* in childhood (Karukivi *et al.*, 2012, in Karukivi & Saarijärvi, 2014); a *less cognitive capacity* of examining, identifying, and describing one's inner emotional states (Moriguchi *et al.*, 2007); a *low self-control of emotions* (Nyklíček, Vingerhoets & Denollet, 2002, Runcan, Iovu, 2013); *parents' alexithymic traits* (Gatta *et al.*, 2016).

Conclusions

Alexithymic adolescents have more mental problems than non-alexithymic ones. Since alexithymic adolescents experience their emotions as diffuse and find it hard to express them, they need explicit assessments before initiating psychological treatments (for example, evaluation of anxiety or depression symptoms or of hazardous alcohol consumption in terms of alexithymia) and adequate address of adolescents' mood disorders, which is only possible in psychiatric care settings, aiming at regulating their emotion skills and treating their mental disorder.

References

- Bagby, R. M., Taylor, G. J. & Ryan, D. P. (1986). The Measurement of Alexithymia: Psychometric Properties of the Schalling-Sifneos Personality Scale. *Comprehensive Psychiatry*, 27(4), 287-294.
- Balottin, L., Nacinovich, R., Bomba, M. & Mannarini, S. (2014). Alexithymia in Parents and Adolescent Anorexic Daughters: Comparing the Responses to TSIA and TAS-20 Scales. *Neuropsychiatric Disease and Treatment*, 10, 1941-1951. DOI: 10.2147/NDT.S67642.
- Berenbaum, H. (1999). Childhood Abuse, Alexithymia and Personality Disorder. *Journal of Psychosomatic Research*, 41(6), 585-595.
- Bird, G. & Cook, R. (2013). Mixed Emotions: The Contribution of Alexithymia to the Emotional Symptoms of Autism. *Translational Psychiatry*, 3, 1-8. DOI: 10.1038/tp.2013.61. REVIEW
- Bolat, N., Yavuz, M., Eliaçık, K. & Zorlu, A. (2017). The Relationships Between Problematic Internet Use, Alexithymia Levels and Attachment Characteristics in A Sample of

- Adolescents in A High School, Turkey. *Psychology, Health & Medicine*, 1-10. DOI: 10.1080/13548506.2017.1394474.
- Brown, S., Fite, P. J., Stone, K., Richey, Al. L. & Bortolato, M. (2018). Associations Between Emotional Abuse and Neglect and Dimensions of Alexithymia: The Moderating Role of Sex. *Psychological Trauma*, 10(3), 300-308. DOI: 10.1037/tra0000279.
- De Berardis, D., Cicconetti, A., Farano, M., Campanella, D., Carano, A., Scali, M., Serroni, N., Di Giuseppe, B., Caltabiano, M., Pizzorno, A. M., Moschetta, F. S., Valchera, A., Sepede, G., Cotellessa, C., Salerno, R. M. & Ferro, F. M. (2008). Alessitimia, lamentele somatiche e sintomi depressivi in adolescenza: uno studio longitudinale a un anno. *Medicina Psichosomatica*, 53(1), 5-12.
- De Berardis, D., Fornaro, M., Orsolini, L., Valchera, A., Carano, A., Vellante, F., Perna, G., Serafini, G., Gonda, X., Pompili, M., Marinotti, G. & Di Giannantonio, M. (2017). Alexithymia and Suicide Risk in Psychiatric Disorders: A Mini-Review. *Frontiers in Psychiatry*, 8, 1-6. DOI: 10.3389/fpsy.2017.00148.
- Deborde, A. S., Miljkovitch, R., Roy, C., Dugré-Le Bigre, C., Pham-Scottez, A., Speranza, M. & Corcos, M. (2012). Alexithymia as A Mediator Between Attachment and the Development of Borderline Personality Disorder in Adolescence. *Journal of Personality Disorders*, 26, 676-688.
- Evren, C., Evren, B., Dalbudak, E., Topcu, M. & Kutlu, N. (2019). Relationship of Internet Gaming Disorder Severity with Symptoms of Anxiety, Depression, Alexithymia, and Aggression Among University Students. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences*, 32, 227-235. DOI: 10.14744/DAJPNS.2019.00032.
- FeldmanHall, O., Dalgleish, T. & Mobbs, D. (2013). Alexithymia Decreases Altruism in Real Social Decisions. *Cortex*, 49, 899-904. DOI: 10.1016/j.cortex.2012.10.015.
- Garisch, J. A. & Wilson, M. S. (2010). Vulnerabilities to Deliberate Self-Harm Among Adolescents: The Role of Alexithymia and Victimization. *British Journal of Clinical Psychology*, 49, 151-162. DOI: 10.1348/014466509X441709.
- Gatta, M., Balottin, L., Mannarini, S., Chesani, G., Del Col, G., Spoto, A. & Battistella, P. A. (2016). Familial Factors Relating to Alexithymic Traits in Adolescents with Psychiatric Disorders. *Clinical Psychologist*, 21(3), 1-12. DOI: 10.1111/cp.12098.
- Gavrila-Ardelean, M. (2014). Study Type Determinants Deviant Behavioral Disorders In Teenagers From Different Residential Areas. *Educatia Plus*, 10 (1), 232-238.
- Gavrilă, M.A. & Gavrilă, L.A. (2010). Neuropsihofiziologie: curs, Mirton.
- Gavrila, M. (2008). Mental Health Education. *Agora Psycho-Pragmatica*, 2 (4), 58.
- Ghiabi, B. & Besharat, M. A. (2011). Emotional Intelligence, Alexithymia, and Interpersonal Problems. *Procedia – Social and Behavioural Sciences*, 30, 98-102. DOI: 10.1016/j.sbspro.2011.10.020.
- Hesse, C. & Floyd, K. (2010). Affectionate Experience Mediates the Effects of Alexithymia on Mental Health and Interpersonal Relationships. *Personality and Individual Differences*, 50, 451-456. DOI: 10.1016/j.paid.2010.11.004.
- Hornsveld, R. H. J. & Kraaimaat, F. W. (2011). Alexithymia in Dutch violent forensic psychiatric outpatients. *Psychology, Crime & Law*, 1-14. DOI:10.1080/1068316X.2011.568416.
- Joukamaa, M., Taanila, A., Miettunen, J., Karvonen, J. T., Koskinen, M. & Veijola, J. (2007). Epidemiology and Alexithymia Among Adolescents. *Journal of Psychosomatic Research*, 63, 373-376. DOI: 10.1016/j.jpsychores.2007.01.018.

- Karukivi, M. (2011). *Associations Between Alexithymia and Mental Well-Being in Adolescents*. A dissertation. Finland: University of Turku.
- Karukivi, M. & Saarijärvi, S. (2014). Development of Alexithymic Personality Features. *World Journal of Psychiatry*, 4(4), 91-102. DOI: 10.5498/wjp.v4.i4.91.
- Kench, S. & Irwin, H. J. (2000). Alexithymia and Childhood Family Environment. *Journal of Clinical Psychology*, 56(6), 737-745.
- Kennedy, M. & Franklin, J. (2002). Skills-based Treatment for Alexithymia: An Exploratory Case Series. *Behaviour Change*, 19(3), 158-171.
- Larsen, J. K., Brand, N., Bermond, B. & Hijman, R. (2003). Cognitive and Emotional Characteristics of Alexithymia: A Review of Neurobiological Studies. *Journal of Psychosomatic Research*, 54, 533-541. DOI: 10.1016/S0022-3999(02)00466-X.
- Levant, R. F., Allen, P. A. & Lien, M.-C. (2014). Alexithymia in Men: How and When Do Emotional Processing Deficiencies Occur. *Psychology of Men and Masculinity*, 15(3), 324-334. DOI: 10.1037/a0033860.supp.
- Lexico*. Available at: <https://www.lexico.com/>. Accessed on April 25, 2020.
- López-Muñoz, F. & Pérez-Fernández, F. (2020). A History of the Alexithymia Concept and Its Explanatory Models: An Epistemological Perspective. *Frontiers in Psychiatry*, 10, 1-8. DOI: 10.3389/psyt.2019.07026.
- Luminet, O., Zech, E., Rimé, B. & Wagner, H. (2000). Predicting Cognitive and Social Consequences of Emotional Episodes: The Contribution of Emotional Intensity, the Five Factor Model, and Alexithymia. *Journal of Research in Personality*, 34, 471-497.
- MacLaren, K. (2006). Emotional Disorder and The Mind-Body Problem: A Case Study of Alexithymia. *Chiasmi International*, 8, 139-154.
- Medical Dictionary*. Available at: <https://medical-dictionary.thefreedictionary.com/>. Accessed on April 25, 2020.
- Morie, K. P., Yip, S. W., Nich, C., Hunkele, K., Carroll, K. M. & Potenza, M. N. (2016). Alexithymia and Addiction. A Review and Preliminary Data Suggesting Neurobiological Links to Reward/Loss Processing. *Current Addiction Reports*, 3(2), 239-248. DOI: 10.1007/s40429-016-0097-8.
- Moriguchi, Y., Maeda, M., Igarashi, T., Ishikawa, T., Shoji, M., Kubo, C. & Komaki, G. (2007). Age and Gender Effect on Alexithymia in Large, Japanese Community and Clinical Samples: A Cross-Validation Study of the Toronto Alexithymia Scale (TAS-20). *BioPsychoSocial Medicine*, 1(7), 1-15. DOI: 10.1186/1751-0759-1-7.
- Muller, R. J. (2000). When a Patient Has No Story to Tell: Alexithymia. *Psychiatric Times*, 17(7), 1-6.
- Musetti, A., Mancini, T., Corsano, P., Santoro, G., Cavallini, M. C. & Schimmenti, A. (2019). Maladaptive Personality Functioning and Psychopathological Symptoms in Problematic Video Game Players: A Person-Centred Approach. *Frontiers in Psychology*, 10, 1-15. DOI: 10.3389/fpsyg.2019.02559.
- Nadolu B., Nadolu D. (2020). Homo Interneticus – The Sociological Reality of Mobile Online Being. *Sustainability* 2020 12(5).
- Nowakowski, M. E., McFarlane, T. & Cassin, S. (2013). Alexithymia and Eating Disorders: A Critical Review of the Literature. *Journal of Eating Disorders*, 1(21), 1-14. REVIEW
- Nyklíček, I., Vingerhoets, A. & Denollet, J. (2002). Emotional (Non)-Expression and Health: Data, Questions, and Challenges. *Psychology and Health*, 17(5), 517-528. DOI: 10.1080/08870440290025740.

- Oskis, A., Clow, A., Hucklebridge, F., Bifulco, A., Jacobs, C. & Loveday, C. (2013). Understanding Alexithymia in Female Adolescents: The Role of Attachment Style. *Personality and Individual Differences*, 54, 97-102. DOI: 10.1016/j.paid.2012.08.023.
- Pandey, R., Mandal, M. K., Taylor, G. J. & Parker, J. D. A. (1996). Cross-Cultural Alexithymia: Development and Validation of a Hindi Translation of the 20-Item Toronto Alexithymia Scale. *Journal of Clinical Psychology*, 52(2), 173-176.
- Panescu, M.C. & Sârbu, E. A. (2019). Psychosocial Factors and Bullying Victimization. *Revista de Asistență Socială [Social Work Review]*, Issue 1/ 2019, București, pp. 95-102.
- Paniccia, M. F., Gaudio, S., Puddu, A., Di Trani, M., Dakanalis, A., Gentile, S. & Di Ciommo, V. (2017). Alexithymia in Parents and Adolescents with Generalised Anxiety Disorder: Alexithymia in Adolescents with Anxiety Disorder. *Clinical Psychologist*, 22(3), 1-8. DOI: 10.1111/cp.12134.
- Parker, J. D. A., Keefer, K. V., Taylor, G. J. & Bagby, R. M. (2008). Latent Structure of the Alexithymia Construct: A Taxometric Investigation. *Psychological Assessment*, 20(4), 385-396. DOI: 10.1037/a0014262.
- Peres, V., Corcos, M., Robin, M. & Pham-Scottet, A. (2018). Emotional Intelligence, Empathy and Alexithymia in Anorexia Nervosa During Adolescence. *Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*, 25, 1-8. DOI: 10.1007/s40510-018-0482-5.
- Psychology Dictionary*. Available at: <https://psychologydictionary.org/>. Accessed on April 25, 2020.
- Runcan, P.L. (2012). The time factor: does it influence the parent-child relationship?! *In Procedia-social and behavioral sciences*. No.33, 11-14.
- Runcan, P.L., Iovu, M.B (2013). Emotional Intelligence and Life Satisfaction in Romanian University Students: The Mediating Role of Self-Esteem and Social Support. *In Revista de Cercetare și Intervenție Socială*, Issue No: 40, 137-148.
- Runcan, P.L., Goian, C. (2014). Parenting practices and the development of trait emotional intelligence: a study on romanian senior high schoolers. *In Revista de Asistența Socială*, Issue No. 1, 67-78.
- Samson, A. C., Hardan, A. Y., Podell, R. W., Phillips, J. M. & Gross, J. J. (2014). Emotion Regulation in Children and Adolescents with Autism Spectrum Disorder. *Autism Research*, 8(1), 9-18. DOI: 10.1002/aur.1387.
- Sayar, K., Kose, S., Grabe, H. J. & Topbas, M. (2005). Alexithymia and Dissociative Tendencies in An Adolescent Sample from Eastern Turkey. *Psychiatry and Clinical Neurosciences*, 59, 127-134.
- Sârbu, E. A. (2016). Conduita suicidară: patternuri și determinanți socio-culturali [Suicidal Behavior: Social and Cultural Patterns and Determinants]. *Revista de Asistență Socială [Social Work Review]*, XV, 4/2016, 79-93.
- Schimmenti, A., Passanisi, A., Caretti, V., La Marca, L., Granieri, A., Iacolino, C., Gervasi, A. M., Maganuco, N. R. & Billieux, J. (2017). Traumatic Experiences, Alexithymia, and Internet Addiction Symptoms among Late Adolescents: A Moderated Mediation Analysis. *Addictive Behaviours*, 64, 314-320. DOI: 10.1016/j.addbeh.2015.11.002.
- Schutte, N. S., Malouff, J. M., Hall, Lena E., Haggerty, D. J., Cooper, Joan T., Golden, C. J. & Dornheim, Liane. (1998). Development and Validation of a Measure of Emotional Intelligence. *Personality and Individual Differences*, 25, 167-177.
- Scimeca, G., Bruno, A., Cava, L., Pandolfo, G., Muscatello, M. R. A. & Zoccali, R. (2014). The Relationship between Alexithymia, Anxiety, Depression, and Internet Addiction Severity

- in a Sample of Italian High School Students. *The Scientific World Journal*, 2014, 1-8. DOI: 10.1155/2014/504376.
- Seo, S. S., Chung, U. S., Rim, H. D. & Jeong, S. H. (2009). Reliability and validity of the 20-item Toronto alexithymia scale in Korean adolescents. *Psychiatry Investigation*, 6(3), 173-179. DOI: 10.4306/pi.2009.6.3.173.
- Stuppy, W. P. & Shipko, S. (1994). The Dichotomy of Alexithymia and Panic Disorder. *International Journal of Psychosomatics*, 41(1-4), 30-33.
- Sunay, D., Baykir, M., Ateş, G. & Ekşioğlu, M. (2011). Alexithymia and Acne Vulgaris: A Case Control Study. *Psychiatry Investigation*, 8, 327-333.
- Taylor, G. J., Bagby, R. M. & Parker, J. D. A. (1991). The Alexithymia Construct: A Potential Paradigm for Psychosomatic Medicine. *Psychosomatics*, 32(2), 153-164.
- Thorberg, F. A., Young, R. McD., Sullivan, K. A. & Lyvers, M. (2009). Alexithymia and Alcohol Use Disorders: A Critical Review. *Addictive Behaviours*, 34, 237-245. DOI: 10.1016/j.addbeh.2008.10.016.
- Thorberg, F. A., Young, Ross McD., Sullivan, K. A. & Lyvers, M. (2011). Parental Bonding and Alexithymia: A Meta-Analysis. *European Psychiatry*, 26(3), 187-193.
- WebMD*. Available at: <https://www.webmd.com/>. Accessed on April 25, 2020.
- Wikipedia*. Available at: <https://en.wikipedia.org/>. Accessed on April 25, 2020.
- Zimmermann, G. (2006). Delinquency in Male Adolescents: The Role of Alexithymia and Family Structure. *Journal of Adolescence*, 29, 321-332. DOI: 10.1016/j.adolescence.2005.08.001.