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Alexithymia- A psychosomatic illness

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Abstract

Alexithymia caught the consideration of numerous therapists and analysts all through the world. Specifically, during the previous 10 to 15 years, a significant assemblage of hypothesis and research has developed on the point. While around 120 articles were published on alexithymia by the mid-1980s, a current hunt of the Psycinfo database uncovered well more than 700 diary articles on alexithymia. Numerous researches have demonstrated that alexithymia is interrelated with a variety of symptomatic complaints including depression and anxiety, somatic complaints, hypertension, inflammatory bowel disease, somatoform disorders, panic disorder and eating disorders. Key Words- Anorexia nervosa; Bulimia nervosa; Non-verbal articulation; Autonomic sensory system.

Introduction

The term alexithymia originated from the Greek, a = without, lexi = word, thymos = emotion. Alexithymia is a disorder or an inability of a person to express his or her feelings and emotions. It is the decreased capacity to comprehend feelings or sentiments in the self as well as of others [1]. The idea of alexithymia began to depict sufferer without the words for sentiments or feelings. It ought to be noticed that examination recommends, that alexithymic individuals frequently demonstrate an inadequacy in compassion and improper influence dependant on the circumstance, maybe because of their failure to peruse feeling in other individuals or circumstances [2]. The notable highlights of alexithymia is trouble in recognizing and depicting subjective sentiments, emotions and the real vibes of passionate excitement, choked imaginal limits and tenuously prescribed psychological style [3].

current epidemiological investigations demonstrate that upwards of 10% of the overall public might be portrayed by stages of alexithymia that are sufficiently high to succeed as uncontrolled [4]. The nonverbal articulation of feelings is connected with an unexpected lessening in autonomic sensory system (ANS) action [5].

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According to a current hypothetical proposition, the highlights including alexithymia build reflect shortfalls in the intellectual handling and direction of feelings [6]. Alexithymia patients can't recognize precisely their own particular subjective sentiments, not exclusively are people with high degrees of alexithymia restricted in their capacity to think about and direct their feelings, however they additionally verbally convey enthusiastic trouble to other individuals ineffectively. The contracted imaginal limits of high alexithymia people restrain the degree to which they can balance feelings by dream, interests, and play [7]. The emotional reacting and feeling control in people include three interrelated frameworks neurophysiological (to a great extent autonomic sensory system and neuroendocrine enactment), engine expressive (for instance, outward appearances, changes in stance, manner of speaking, and intellectual experiential (subjective mindfulness and verbal detailing of feeling states) [8]. The direction of feelings includes common cooperation's among these three frameworks; furthermore, a person's social associations give relational feeling control that might be strong or troublesome [9,10,11,12,13].

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Other than social communications (dialect, dreams, fantasy, play, crying, grinning, and sense of self guard instruments) all assume a prominent role in feelings regulation. Alexithymia has been additionally connected to passionate discernment by contemplates relating it to deficiencies in the psychological experimental component of enthusiastic reaction and relational direction of feeling [14, 15].

In conceptualizing stages in ordinary influence improvement, an epigenetic succession was proposed in which the development of symbolization and the dynamic wisdom of dialect prompts the arrangement of intellectual patterns of feelings of expanding many-sided quality that bit by bit lift the cognizant experience of feelings from an attention to fringe signs of enthusiastic excitement just (through substantial sensations or an inclination to activity) to a familiarity with mixes of sentiments and a capacity to recognize subtleties of feelings [16,17]. The prior phases of cement tangible and motoric handling of feelings are not deserted when levels of formal, coherent preparing are accomplished [18].

Drawing on late learning from psychological biology and neuroscience, a "numerous code hypothesis, "was devised in which the feelings are spoken to both verbally and nonverbally. The nonverbal feeling blueprints grow first and incorporate representative procedures (tangible, instinctive, and sensation sensations) and additionally emblematic symbolism[19]. The verbal and nonverbal blueprints are associated by referential connections; these are most far off for sub emblematic portrayals, for example, tactile encounters and examples of excitement, which may autonomic associations with particular pictures with in the nonverbal area before they can be associated with dialect in the verbal space [20]. In a few occurrences, the individual is without images (verbal and nonverbal) for physical states[22].

The separation between sub emblematic and representative inside the nonverbal feeling outlines may enable physiological initiation to happen among enthusiastic excitement without comparing psychological actuation [23]. Besides, "without emblematic concentration and direction. enactment is probably going to be drawn out and monotonous, and a definitive impacts on physiological frameworks to be more extreme"[24]. In investigating the discernment and subjective examination of emotive stimuli, two exploratory examinations found that high alexithymia people are less exact in recognizing postured outward appearances of feelings than are low-alexithymic people [25, 26]. What's more, utilizing a progression of assignments that require coordinating oral or nonoral emotional stimuli with verbal or nonverbal emotional reactions, found that high-alexithymia people had altogether bring down precision rates than did low-alexithymia people on all verbal and nonverbal errands [27]. Following the opinion that "split-mind "patients show certain alexithymic attributes. On the other hand alexithymia may include a "useful commissurotomy" [28, 29]. The present discoveries recommend that the striking highlights of the alexithymia develops mirror, a restricted ability to coordinate and incorporate movement in the particular psychological, imaginal, and emotive processing frameworks of the right and left hemispheres [30].

Numerous specialists in the mid-1980s proposed that alexithymia may include a "decoupling" of the subjective and physiological parts of the emotional reaction to tense stimuli [31]. This might be credited to some extent to utilizing distinctive feeling inciting stimuli. For instance, seeing emotional scenes in slides, performing mental number juggling, or discussing a disquieting individual affair and furthermore to checking diverse physiological factors (heartrate, circulatory strain, skin conductance, or muscle pressure) [32]. While in a few examinations alexithymia was related with advanced stimulant or standard levels of thoughtful action. investigations discovered either hypoarousal or no alexithymia impact during introduction to a stressor [33,34,35,36,37].

Alexithymia has also been linked with many other disturbing difficulties which includes anhedonia (reduced capacity for positive emotional experiences, prevalence of and proneness towards negative emotions [38]. it ought to be well-thought-out as a hazard element for those therapeutic, mental, or social issues that are impacted by disarranged influence control[39].

Alexithymic individuals also report a variety of somatic and cerebral health problems. Such as a wide range of emotional difficulties present in alexithymic individuals make them prone to a variety of mental and physical health problems [40, 41]. Alexithymia has some an incentive in foreseeing wellbeing changes past the prescient capacity of other surely understood hazard features. For instance, in a two year continuation investigation of victims cured for somatoform confusion or frenzy issue, alexithymia was observed to be a noteworthy indicator of diligent somatization autonomous of different sorts of psychopathology, seriousness of sickness, and sociodemographic factors [42].

Alexithymia is a dangerous aspect for physical illness and ailment, there are a few probable ways whereby the related feeling imbalance could impact real procedures. These include ghoulish behaviors that are regularly connected with alexithymia, for example, substance cruelty and messy eating, and conceivable supported excitement or dysregulation of the physiological segment of feeling reaction frameworks [43].Even with the point that information of the physiological corresponds of alexithymia is right now uncertain, a portion of the substantial issue that match with high rates of alexithymia are known to be related with a sympatho-vagal imbalance [44]. Fundamental hypertension, for instance, has been connected not only with amplified sympathetic activity but also with decrease vagal tone [45,46]. Poor vagal tone has been recognized as a possible facilitating contrivance among personality factors and gastrointestinal symptoms in efficient dyspepsia [47].Some exploration proposes that the relationship amongst alexithymia and sickness might be because of the impacts of alexithymia on ailment conduct, (for example, side effect mindfulness and dissensions) and care-chasing[48,49]. There is also confirmation that alexithymia can have an adverse impact on the value of life in sufferers with a long-lasting illness [50].A few investigations find that men have a tendency to be alexithymic than ladies[51].Restrictive emotionality alludes to difficulty with the fear about communicating feelings. Prohibitive emotionality has been detected to be allied with a lower probability of men's ability to look for mental help [52].

As to alexithymia and its estimation, amid the past couple of decades, a few instruments have been created with the point of evaluating and examining its highlights, additionally keeping in mind the end goal to design the mental medicines however these do not have the unwavering quality and legitimacy [53,54,55]. Probably the most known self-report scales, for example, the Schalling-Sifneos Personality Scales [56] and the MMPI Alexithymia Scale [57] were built hurriedly and with little thoughtfulness regarding regular techniques for test development. Accordingly, ensuing examinations demonstrated that these scales lack quality and legitimacy [58]. Estimation of the alexithymia build remained a noteworthy issue until the Toronto Alexithymia Scale TAS-20 [59] was presented. Indeed, this self-report measure was produced test improvement strategies considerations regarding satisfactory psychometric qualities and this is one of the most utilized measures of alexithymia [60].

Fundamental research stays important to answer uncertain inquiries concerning alexithymia. All things considered, various exact findings on alexithymia now appear to be sufficiently settled to contemplate their clinical application. For example alexithymic patients can in any event incompletely build up some ability to perceive their sentiments and to convey them to other individuals, along these lines improving their capacity to utilize passionate data to manage versatile conduct [61].

Social, linguistic, and neuroscience research on alexithymia appears to have advanced to a point where they might be converted into successful treatments for alexithymic people. These treatments might be conveyed in imaginative arrangements, for example, Internet-based projects [62]. These projects may be particularly engaging alexithymic people, in light of the fact that online correspondence gives an approach to keep relational contact at the very least, bringing down the requirement for straight forwardly sharing one's feelings [63]. Cures for alexithymia might be offered to supplement prevailing clinical medicines, to allow high alexithymic people to get more benefits from psychotherapy [64].

The proneness of alexithymic people to destructive emotive practices and an abridged aptitude for optimistic destructive emotional experiences may be a possible factor contributing to the health connected difficulties between alexithymics [65].

The connection amongst alexithymia and feeling direction was examined experimentally by the Affect Regulation Scale (ARS) to evaluate the systems individuals use to adapt to troubling emotional states that may be incited by different circumstances[66]. In an example of grown-up mental outpatients, alexithymia was related emphatically with maladaptive styles of feeling direction, for example, gorging on sustenance or building up a migraine, and adversely with versatile practices, for example, considering and attempting to comprehend troubling emotions or conversing with a minding individual [67].

Connection between alexithymia and vagal tone, was also studied which revealed that vagal tone was observed to be high for low-alexithymia men and low for high-alexithymia men [68]. In spite of the fact that the two branches of the autonomic sensory system don't work autonomously, vagal tone has been connected to more prominent physiological and mental adaptability and strengthened in the light of upsetting circumstances [69]. A few analysts have started to examine conceivable varieties in rest of the

physiology related with alexithymia. A current report with a little specimen of solid youthful grown-ups not just affirmed that the fantasies of alexithymic people are less creative than the fantasies of non alexithymic people, however discovered likewise that the rapid eye movement (REM) thickness (add up to number of eye developments partitioned by the quantity of REM periods) was half less in the alexithymic people [70].

Alexithymia is likewise associated with hypertension. It was revealed in a study that 55% of hypertensive patients were reported to be alexhythmic [71]. Strikingly, the relationship between alexithymia and hypertension was autonomous of sodium and liquor consumption, weight record, and physical wellness [72].

Some analyst see freeze assaults as overpowering surges of undifferentiated feelings that have not been contained by higher-arrange emblematic portrayals and are communicated as a significant autonomic unsettling influence[73]. Exact investigations have revealed high rates of alexithymia, for example, 47% and 67% among patients with freeze issue, contrasted with 13% in patients with fanatical impulsive issue and 12.5% in patients with basic fear [74, 75].

Experimental examinations have also affirmed these medical imprints; revealed rates of alexithymia range from 48% to 77% for patients with anorexia nervosa and 40% to 61% for patients with bulimia nervosa [76].Despite the fact alexithymia that inconsequential to eating-related states of mind, for example, drive for slenderness and body disappointment, it is related emphatically with mental qualities that relate to troubles in self-and influence control, for example, relational doubt, insufficiency, and absence of interceptive mindfulness[77]. A portion of the side effects of dietary problems, for example, starvation, gorging, regurgitating, and hyperactivity, have been intellectualized as endeavors to manage upsetting and indistinguishable passionate states [78].

Association among sexual orientation, alexithymia, and self-revealed examples of reacting to depressive manifestations. Their outcomes recommend that both alexithymia and sex are identified with varieties in how people react to depressive side effects. Although the overall pattern of relationships between alexithymia and responses to depressive symptoms is similar for men and women [79]. Some findings show that alexithymia has stouter associations to thinking about the reasons of the depressing symptoms for men than for women. First, men's (but not women's) ability to express emotion is related to their preference for thinking about possible reasons for their mood when

depressed [80]. Second, externally-oriented thinking is a significantly stronger predictor of not thinking about reasons for men than for women [81]. That is, men who have difficulty thinking or talking about internal states are far less likely to report that they would think about their feelings and reasons for their mood than women with similar difficulties would. Thus, men's smaller probability of introspecting about emotional problems may be due to a difficulty with emotion linked language [82].

A significant number of the early investigations on alexithymia are of faulty legitimacy generalizability, since they were directed with rather hurriedly developed measures that in this manner were appeared to need dependability and . The improvement of the Toronto Alexithymia Scale (TAS) and the amended Twenty-Item Toronto Alexithymia Scale (TAS 20) gave solid and substantial strategies to measuring the develop. While alexithymia is viewed as a dimensional build, experimentally settled cutoff scores for both the TAS and TAS-20 empower scientists to analyze rates of high alexithymia crosswise over examinations [83, 84]. In spite of the fact that it has great psychometric properties, the TAS-20 has been as of recently censured for having different deficiencies.

Conclusion

Alexithymia with physical and mental issues claims that these physical and dysfunctional behavior are the result of failure to acknowledge, recognize and precise effect, which in turns, expands the physiological excitement and those adverse idiosyncratic express that are not administered by mental methodologies.

References

- [1] Bach, M., & Bach, D. (1995). Predictive value of alexithymia: a prospective study in somatizing patients. Psychotherapy and Psychosomatics, 64(1), 43-48.
- [2] Bagby, R. M., Parker, J. D., & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale—I. Item selection and cross-validation of the factor structure. Journal of psychosomatic research, 38(1), 23-32.
- [3] Bagby, R. M., Taylor, G. J., Parker, J. D., & Dickens, S. E. (2006). The development of the Toronto Structured Interview for Alexithymia: item selection, factor structure, reliability and concurrent validity. Psychotherapy and Psychosomatics, 75(1), 25-39.
- [4] Campos, J. J., Campos, R. G., & Barrett, K. C. (1989). Emergent themes in the study of

- emotional development and emotion regulation. Developmental Psychology, 25(3), 394-402
- [5] Friedlander, L., Lumley, M. A., Farchione, T., & Doyal, G. (1997). Testing the alexithymia hypothesis: Physiological and subjective responses during relaxation and stress. The Journal of nervous and mental disease, 185(4), 233-239.
- [6] Izard, C. E., & Kobak, R. R. (1991). Emotions system functioning and emotion regulation.
- [7] Jimerson, D. C., Wolfe, B. E., Franko, D. L., Covino, N. A., & Sifneos, P. E. (1994). Alexithymia ratings in bulimia nervosa: clinical correlates. Psychosomatic Medicine, 56(2), 90-93.
- [8] Lumley, M., Stettner, L., & Wehmer, F. (1996). How are alexithymia and physical illness linked? A review and critique of pathways. Journal Of Psychosomatic Research, 41(6), 505-518.
- [9] Müller, J., Bühner, M., & Ellgring, H. (2004). The assessment of alexithymia: psychometric properties and validity of the Bermond–Vorst alexithymia questionnaire. Personality and Individual Differences, 37(2), 373-391.
- [10] Nemiah, J. C. (1976). Alexithymia: a view of the psychosomatic process. Modern trends in psychosoamtic medicine, *3*, 430-439.
- [11] O'Neil, J. M., Helms, B. J., Gable, R. K., David, L., & Wrightsman, L. S. (1986). Gender-Role Conflict Scale: College men's fear of femininity. Sex roles, 14(5), 335-350.
- [12] Papciak, A. S., Feuerstein, M., & Spiegel, J. A. (1985). Stress reactivity in alexithymia: decoupling of physiological and cognitive responses. Journal of Human stress, 11(3), 135-142.
- [13] Roedema, T. M., & Simons, R. F. (1999). Emotion-processing deficit in alexithymia. Psychophysiology, 36(3), 379-387.
- [14] Salminen, J. K., Saarijärvi, S., Äärelä, E., Toikka, T., & Kauhanen, J. (1999). Prevalence of alexithymia and its association with sociodemographic variables in the general population of Finland. Journal of psychosomatic research, 46(1), 75-82.
- [15] Spek, V., Nyklíček, I., Cuijpers, P., & Pop, V. (2008). Alexithymia and cognitive behaviour therapy outcome for subthreshold depression. Acta Psychiatrica Scandinavica, 118(2), 164-167.
- [16] Svenaeus, F. (1999). Alexithymia: A phenomenological approach. Philosophy, Psychiatry, & Psychology, 6(2), 71-82.
- [17] Taylor, G. J. (1984). Alexithymia: concept, measurement, and implications for treatment. The American Journal of Psychiatry, 141(6), 725-732.

- [18] Taylor, G. J. (1994). The alexithymia construct: Conceptualization, validation, and relationship with basic dimensions of personality. New Trends in Experimental and Clinical Psychiatry, 10, 61-61
- [19] Vassend, O. (1987). Personality, imaginative involvement, and self-reported somatic complaints: relevance to the concept of alexithymia. Psychotherapy and psychosomatics, 47(2), 74-81.
- [20] Wehmer, F., Brejnak, C., Lumley, M., & Stettner, L. (1995). Alexithymia and physiological reactivity to emotion-provoking visual scenes. The Journal of nervous and mental disease, 183(6), 351-357.
- [21] Weiner, H. (1992). Specificity and specification: two continuing problems in psychosomatic research. Psychosomatic Medicine, 54(5), 567-587.
- [22] Wisch, A. F., Mahalik, J. R., Hayes, J. A., & Nutt, E. A. (1995). The impact of gender role conflict and counseling technique on psychological help seeking in men. Sex Roles, 33(1-2), 77-89.
- [23] Zeitlin, S., and Mcnally, R. (1993). Alexithymia and Anxiety Sensitivity in Panic Disorder and Obsessive Compulsive Dosorder. American Journal of Psychiatry, 150(4), 658-660.
- [24] Todarello, O., Casamassima, A., Daniele, S., Marinaccio, M., Fanciullo, F., Valentino, L., & Marinaccio, L. (1997). Alexithymia, immunity and cervical intraepithelial neoplasia: replication. Psychotherapy and psychosomatics, 66(4), 208-213.
- [25] Todarello, O., Taylor, G. J., Parker, J. D., & Fanelli, M. (1995). Alexithymia in essential hypertensive and psychiatric outpatients: a comparative study. Journal of Psychosomatic Research, 39(8), 987-994.
- [26] Porcelli, P., Zaka, S., Leoci, C., Centonze, S., & Taylor, G. J. (1995). Alexithymia in inflammatory bowel disease. Psychotherapy and Psychosomatics, 64(1), 49-53.
- [27] Porges, S. W. (1994). Vagal Tone and Physiological Regulation of Emotion. Monographs of the Society for Research in Child Development, 59, 167-86.
- [28] Kooiman, C. G., Spinhoven, P., & Trijsburg, R. W. (2002). The assessment of alexithymia: a critical review of the literature and a psychometric study of the Toronto Alexithymia Scale-20. Journal of psychosomatic research, 53(6), 1083-1090.
- [29] Krystal, H. (1988). Integration and Self-Healing. Affect, Trauma, Alexithymia. Hillsdale, NJ (The Analytic Press) 1988.

- [30] Friedlander, L., Lumley, M. A., Farchione, T., & Doyal, G. (1997). Testing the alexithymia hypothesis: physiological and subjective responses during relaxation and stress. The Journal of nervous and mental disease, 185(4), 233-239.
- [31] Fava, G. A., Baldaro, B., & Osti, R. M. (1980). Towards a self-rating scale for alexithymia. Psychotherapy and psychosomatics, 34(1), 34-39
- [32] Cox, B. J., Kuch, K., Parker, J. D., Shulman, I. D., & Evans, R. J. (1994). Alexithymia in somatoform disorder patients with chronic pain. Journal of Psychosomatic Research, 38(6), 523-527.
- [33] De Groot, J. M., Rodin, G., & Olmsted, M. P. (1995). Alexithymia, depression, and treatment outcome in bulimia nervosa. Comprehensive Psychiatry, 36(1), 53-60.
- [34] Bourke, M. P., Taylor, G. J., Parker, J. D., & Bagby, R. M. (1992). Alexithymia in women with anorexia nervosa. A preliminary investigation. The British Journal of Psychiatry, 161(2), 240-243
- [35] Bruch, H. (1962). Perceptual and conceptual disturbances in anorexia nervosa. Psychosomatic medicine, 24(2), 187-194.
- [36] Bekendam, C. C. (1998). Dimensions of emotional intelligence: Attachment, affect regulation, alexithymia and empathy.
- [37] Apfel, R. J., & Sifneos, P. E. (1979). Alexithymia: Concept and measurement. Psychotherapy and psychosomatics, 32(1-4), 180-190
- [38] Berthoz, S., Consoli, S., Perez-Diaz, F., & Jouvent, R. (1999). Alexithymia and anxiety: compounded relationships? A psychometric study. European Psychiatry, 14(7), 372-378.
- [39] Dubey, A., & Pandey, R. (2013). Mental health problems in alexithymia: Role of positive and negative emotional experiences. Journal of Projective Psychology & Mental Health, 20(2), 128-136.
- [40] Kauhanen, J., Kaplan, G. A., Cohen, R. D., Salonen, R., & Salonen, J. T. (1994). Alexithymia may influence the diagnosis of coronary heart disease. Psychosomatic Medicine, 56(3), 237-244.
- [41] Lumley, M. A., Stettner, L., & Wehmer, F. (1996). How are alexithymia and physical illness linked? A review and critique of pathways. Journal of psychosomatic research, 41(6), 505-518.
- [42] Nemiah, J. C., Freyberger, H. J., & Sifneos, P. E. (1976). Alexithymia: A view of the psychosomatic process In Hill OW, editor. (Ed.), Modern trends in psychosomatic medicine. 430– 439.

- [43] Ogrodniczuk, J. S., Piper, W. E., & Joyce, A. S. (2011). Effect of alexithymia on the process and outcome of psychotherapy: A programmatic review. Psychiatry research, 190(1), 43-48.
- [44] Pennebaker, J. W. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. Behaviour research and therapy, 31(6), 539-548.
- [45] Linden, W., Lenz, J. W., & Stossel, C. (1996). Alexithymia, defensiveness and cardiovascular reactivity to stress. Journal of Psychosomatic Research, 41(6), 575-583.
- [46] Friedman, B. H., & Thayer, J. F. (1998). Anxiety and autonomic flexibility: a cardiovascular. Biological Psychology, 49, 303-323.
- [47] Garber, J., & Dodge, K. A. (Eds.). (1991). The development of emotion regulation and dysregulation. Cambridge University Press. 3-11
- [48] Haug, T. T., Svebak, S., Hausken, T., Wilhelmsen, I., Berstad, A., & Ursin, H. (1994). Low vagal activity as mediating mechanism for the relationship between personality factors and gastric symptoms in functional dyspepsia. Psychosomatic Medicine, 56(3), 181-186.
- [49] Robins, R. W., Hendin, H. M., & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. Personality and social psychology bulletin, 27(2), 151-161.
- [50] Schaffer, C. E. (1994). The role of adult attachment in the experience and regulation of affect.
- [51] Martin, J. B., & Pihl, R. O. (1986). Influence of alexithymic characteristics on physiological and subjective stress responses in normal individuals. Psychotherapy and psychosomatics, 45(2), 66-77
- [52] Lumley, M. A., Gustavson, B. J., Partridge, R., & Labouvie-Vief, G. (2005). Assessing alexithymia and related emotional ability constructs using multiple methods: Interrelationships among measures. Emotion, 5(3), 329-342.
- [53] Dedroot, J., Rodin, G., & Olmsted, M. (1995). Alexithymia, depression, and treatment outcome in bulimia-nervosa. Comprehensive Psychiatry, 36(1), 53-60.
- [54] Samur, D., Tops, M., Schlinkert, C., Quirin, M., Cuijpers, P., & Koole, S. L. (2013). Four decades of research on alexithymia: moving toward clinical applications. Frontiers in psychology, 4.
- [55] Taylor, G. J., Bagby, R. M., & Luminet, O. (2000). Assessment of alexithymia: Self-report and observer-rated measures. The handbook of emotional intelligence, 301-319.

- [56] Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). Disorders of affect regulation: Alexithymia in medical and psychiatric illness. Cambridge University Press: Cambridge.
- [57] Taylor, G. J., Bagby, R. M., Ryan, D. P., Parker, J. D., Doody, K. F., & Keefe, P. (1988). Criterion validity of the Toronto Alexithymia Scale. Psychosomatic medicine, 50(5), 500-509.
- [58] Verissimo, R., Mota-Cardoso, R., & Taylor, G. (1998). Relationships between alexithymia, emotional control, and quality of life in patients with inflammatory bowel disease. Psychotherapy and psychosomatics, 67(2), 75-80.
- [59] Taylor, G.J., Parker, J.D.A., Bagby, R.M. & Acklin, M.W. (1992). Alexithymia and somatic complaints in psychiatric out-patients. Journal of Psychosomatic Research, 36, 417-24.
- [60] Nemiah, J. C., & Sifneos, P. E. (1970). Affect and fantasy in patients with psychosomatic disorders. In 0. W. Hill (Ed.), Modern trends in psychosomatic medicine. 2, 26—34.
- [61] Mann, L. S., Wise, T. N., Trinidad, A., & Kohanski, R. (1994). Alexithymia, affect recognition, and the five-factor model of personality in normal subjects. Psychological Reports, 74(2), 563-567.
- [62] Bem, S. L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42(2), 155-162
- [63] Bauermann, T. M., Parker, J. D. A., & Smith, C. T. (1999). Alexithymia, sleep and dreams: some preliminary findings. Sleep, 22(1), 253-4.
- [64] Beales, D. L., & Dolton, R. (2000). Eating disordered patients: personality, alexithymia, and implications for primary care. The British Journal of General Practice, 50(450), 21-26.
- [65] Fava, G. A., Freyberger, H. J., Bech, P., Christodoulou, G., Sensky, T., Theorell, T., & Wise, T. N. (1995). Diagnostic criteria for use in psychosomatic research. Psychotherapy and Psychosomatics, 63(1), 1-8.
- [66] Fox, K. (2011). Alexithymia and emotional response intensity based on the perceived reality of shocking videos. In Poster presented at the 39th Annual Western Pennsylvania Undergraduate Psychology Conference, New Wilmington, PA.
- [67] Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. Clinical psychology: Science and practice, 2(2), 151-164.
- [68] Krystal, H. (1992). Which Paradigms are Compatible with Psychoanalysis?. Journal of American Academy of Psychoanalysis, 20, 395-412.

- [69] Lane, R. D., & Schwartz, G. E. (1987). Levels of emotional awareness: A cognitive-developmental theory and its application to psychopathology. American Journal of Psychiatry, 144(2), 133-143.
- [70] Lumley, M. A., & Sielky, K. (2000). Alexithymia, gender, and hemispheric functioning. Comprehensive psychiatry, 41(5), 352-359
- [71] Rafanelli, C., Roncuzzi, R., Finos, L., Tossani, E., Tomba, E., Mangelli, L., & Fava, G. A. (2003). Psychological assessment in cardiac rehabilitation. Psychotherapy and psychosomatics, 72(6), 343-349
- [72] Parker, J. D., Michael Bagby, R., Taylor, G. J., Endler, N. S., & Schmitz, P. (1993). Factorial validity of the 20-item Toronto Alexithymia Scale. European Journal of personality, 7(4), 221-232.
- [73] Carpenter, K. M., & Addis, M. E. (2000). Alexithymia, gender, and responses to depressive symptoms. Sex Roles, 43(9), 629-644.
- [74] Cochrane, C. E., Brewerton, T. D., Wilson, D. B., & Hodges, E. L. (1993). Alexithymia in the eating disorders. International Journal of Eating Disorders, 14(2), 219-222.
- [75] Hoppe, K. D., & Bogen, J. E. (1977). Alexithymia in twelve commissurotomized patients. Psychotherapy and psychosomatics, 28(1-4), 148-155.
- [76] Infrasca, R. (1997). Alexithymia, neurovegetative arousal and neuroticism. Psychotherapy and Psychosomatics, 66(5), 276-280.
- [77] Jula, A., Salminen, J.K, Saarijärvi, S. (1999). Alexithymia: A facet of essential hypertension. Hypertension, 33(4), 1057-1061.
- [78] Lane, R. D., Lee, S., Reidel, R., Weldon, V., Kaszniak, A., & Schwartz, G. E. (1996). Impaired verbal and nonverbal emotion recognition in alexithymia. Psychosomatic medicine, 58(3), 203-210.
- [79] Luminet, O., & Rimé, B. (1998, August). Assessing the empirical validity of alexithymia: its predictive value for various levels of emotional responding when exposed to an eliciting situation and when re-evoking it verbally. In the conference of the International Society for Research of Emotion, Wuerzburg, Germany, August.
- [80] O'Neil, J. M., Good, G. E., & Holmes, S. (1995).
 Fifteen years of theory and research on men's gender role conflict: New paradigms for empirical research. In Parts of this chapter were presented at the 102nd Annual Convention of the American

- Psychological Association, Los Angeles, CA, Aug 1994. Basic Books.
- [81] Parker, J. D., Taylor, G. J., & Bagby, M. (1993). Alexithymia and the recognition of facial expressions of emotion. Psychotherapy and psychosomatics, 59(3-4), 197-202.
- [82] Parker, J. D., Taylor, G. J., Bagby, R. M., & Acklin, M. W. (1993). Alexithymia in panic disorder and simple phobia: a comparative study. The American journal of psychiatry, 150(7), 1105-1107.
- [83] Taylor, G. J., Parker, J. D., Bagby, R. M., & Bourke, M. P. (1996). Relationships between alexithymia and psychological characteristics associated with eating disorders. Journal of psychosomatic research, 41(6), 561-568.
- [84] Taylor, G., & Bagby, R. (2004). New trends in alexithymia research. Psychotherapy and Psychosomatics, 73(2), 68-77.