

Recent Trends in Alexithymia

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Abstract The construct of alexithymia is rapidly undergoing change. The stability of scores in the measurement of alexithymia has led to questions about it being a trait or a state. Absolute and relative stability of alexithymic scores have implications for psychological assessments and interventions. The conceptual shift and the involvement of both cortical and sub-cortical structures have created new in roads in understanding cognitive and emotional processing in alexithymia. This article gives an overview of how assessments (qualitatively and quantitatively) in alexithymia have evolved over the years. Psychological interventions on alexithymic individuals has long been studied and inconclusive evidences have led to questions about whether alexithymic patients are good responders to psychotherapy or otherwise. Recent literature though sparse has shown that alexithymic patients do better with cognitive behavioral interventions. In addition alexithymia has emerged as better predictor of treatment outcomes.

Keywords Alexithymia, Psychological intervention, Assessments

1. Introduction

The word 'alexithymia' was first introduced by Sifneos in 1973 to describe a marked difficulty in verbalizing feelings and a diminution of fantasy of psychosomatic patients. However the concept of alexithymia is multidimensional consisting of (1) difficulties in identifying and describing emotions, (2) difficulties in distinguishing between emotions and physical sensations of emotional arousal, (3) reduced imaginative processes, lack of fantasy and (4) an externally oriented cognitive style (De Vries, Forni, Voellinger & Stiefel, 2012).

2. Construct of Alexithymia

2.1. Absolute Stability Versus Relative Stability

In the context of alexithymia, absolute stability is a defined as extent to which alexithymia scores change over time. Relative stability on the other hand is the relative differences among individuals remain the same over time (Luminet, Rokbani, Ogez & Jadoulle, 2007). The authors studied absolute and relative stability of alexithymia in breast cancer patients by examining the changes in depression and anxiety at 2 time frames-day before surgery and six months later. The dimensions of alexithymia, difficulty identifying feelings accounted for highest variation

in depression and anxiety. On the other hand externally oriented thinking another measure of alexithymia did not predict variation in depression. Hence this study points to relative stability and the need to view alexithymia as vulnerable dimension rather than state dependent. The implications of this study helps in planning psychological assessments and interventions.

Similar results were found in a study done by Porcelli, Tulipani, Micco, Spedicato & Maiello (2011) who tested absolute stability and relative stability in patients receiving psychological therapy and control group. The results of the study point to relative stability of alexithymia as a construct. Further regression analyses support the relative stability of baseline alexithymia accounting for 28% of variance.

Previous studies show similar amounts of specific variance explained by baseline alexithymia in functional somatic symptoms (19% in Porcelli, Bagby, Carne, Leandro & Todarello, 2003), major depression (27% in Saarijarvi, Salimen, Toikka, 2006 and 33% in Luminet, Bagby & Taylor, 2001), alcohol dependence (44% in De Timary, Ingels, Goovaerts, Hers, Luts & Luminet, 2008) and situational stress (55% in Mikolajczak & Luminet, 2006).

To conclude on the stability of the concept of alexithymia it has been suggested this dichotomy be reduced to viewing it as interplay of state and trait components. An in depth understanding on an individual basis and their premorbid level of functioning will help gain insight into how individuals at different points in time may manifest a trait or a state (Lumley, Neely & Burger, 2007).

2.2. Paradigm Shift

There has been a paradigm shift in the study of

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alexithymia from conceptual level to understanding of it biologically. Studies of alexithymia and personality on the other hand have used the Five Factor Model and Temperament and Character Inventory.

Luminet, Bagby, Wagner, Taylor and Parker (1999) in a study on alexithymia and the Five Factor Model have found both a positive and moderate correlation to neuroticism. Further regression analyses indicated that depression (facet of neuroticism) predicted alexithymia. Positive emotions and assertiveness were negatively related to scores on alexithymia.

Celikel et al (2010) found that global alexithymic scores negatively correlated with subscales of Temperament and Character Inventory-Reward dependence (RD) and Self directedness (SD). Specifically a sub scale of alexithymia, difficulties in identifying feelings positively correlated with Self transcendence and negatively correlated with SD. In depressed patients, RD was significantly lower.

Neurobiological studies on the other hand have studied how different centers of the brain- cortically and sub-cortically have been involved in cognitive and affective processing of emotions.

In a study by Lane, Quinlan, Schwartz, Walker & Zeitlin (1997), tests on emotional arousal have found deficits in the right dorsal anterior cingulate cortex on PET studies (as cited in Taylor & Bagby, 2004).

An experiment by Hariri et al. (2000) where it was required to match angry or frightened faces, it was found that reduction of activity in the amygdala and increase activity in the pre frontal cortex. Hence the connection of the amygdala and the pre frontal cortex play an important role in both cognitive and affective processes (as cited in Taylor & Bagby, 2004).

Moriguchi and Komaki (2013) in a study on neuroimaging studies in alexithymia reported a reduced neural response in the limbic and para limbic systems namely amygdala, insula and anterior cingulate gyrus in response to visual stimuli. During an imagery task, reduced neural response in the posterior cingulate cortex was found suggesting that voluntary cognitive functioning is disturbed in alexithymia. In comparison, individuals who score high on alexithymia exhibit increased neural response to stimuli accompanied by a 'physical' context, such as somatosensory or sensorimotor process suggesting an increased tendency to rely on or to amplify physical symptoms. Those with alexithymia have also shown reduced activation in the medial prefrontal cortex or insula when engaged in cognitive processes, such as social tasks requiring mentalizing ability.

3. Alexithymia and Psychiatric Disorders

Associations between alexithymia and illness behavior have often interpreted alexithymia as being the cause. This is particularly so with psychosomatic illnesses where psychological factors are known to influence physiological

outcomes. Krystal (1997) found a link between alexithymia and childhood trauma and this would ideally be 'primary alexithymia'. On the other hand 'secondary alexithymia' could be whether stressful life events could trigger an inability to express/ describe emotions in adolescence or adulthood.

Initial studies of elevated levels of alexithymia have been reported in classic psychosomatic disorders such as rheumatoid arthritis, hypertension, peptic ulcer and inflammatory bowel disease (Taylor, Bagby & Parker, 1997). Subsequently, elevated levels of alexithymia have been found in a wide range of conditions including irritable bowel syndrome, cardiac disease, non-cardiac chest pain, breast cancer, diabetes, morbid obesity, chronic pain, eating disorders, substance dependence, pathological gambling, kidney failure, stroke, HIV infection, fibromyalgia, panic disorder, post traumatic stress disorder, erectile dysfunction, low sperm counts and chronic itching.

Hence a shift has been observed in research from psychosomatic disorders to alexithymia as a risk factor for medical, psychiatric and behavioral disorders (Taylor et al. 1997). The hypothesis is that alexithymia is a disorder of affect regulation and uses processes such as modulating arousal, appropriately expressing or suppressing emotions, employing fantasy, obtaining and using social support, tolerating painful emotions, cognitive assimilation and accommodation. These facets of emotional expression are likely to contribute to various physical and mental health problems (Taylor et al., 1997).

4. Measurement of Alexithymia

Alexithymia as a concept is undergoing change in its inter disciplinary and methods of assessment. The focus is now on experimental techniques which use physiological measures like functional imaging to explore neural activity associated with alexithymia (Taylor & Bagby, 2004).

Three interview based approaches to assessing alexithymia was the original method of assessment.

Firstly, Sifneos (1973) created a scale called Beth Israel Hospital Questionnaire which was altered by modified by Bagby, Taylor and Parker (1994). After this several studies have further validated it (Haviland, Warren, Riggs & Nitch, 2002) because of challenges such as long time needed for interview, lack of standardized interview and poor inter rater reliability.

Secondly, the Diagnostic Criteria for Psychosomatic Research (DPCR), is a structured interview and diagnostic criteria which is a structured interview and diagnostic criteria of psychosomatic syndrome including alexithymia. High inter-rater reliability has been reported as a 'diagnostic tool' (Galeazzi, Ferrari, Mackinnon & Rigatelli, 2004).

Thirdly the Toronto group recently developed a interview based set of items on a 24 item Toronto Structured Interview for Alexithymia (TSIA; Bagby, Taylor, Parker & Dickens, 2006). This has a four structure and correlates modestly with

self reported alexithymia ($r=.36$).

Another way of assessing alexithymia by obtaining reports from significant others has been developed by Haviland, Warren & Riggs (2000) called Observer Alexithymia Scale.

Rorschach Ink Blot Test has been explored to have some indicators to detect alexithymia such as deficits in imagination, creativity, symbolism and affect regulation. Particularly the Exner system proposes indices such as low response productivity, low human movement suggesting poor fantasy ability, low concrete thought, and limited use of colour.

Another approach of assessing alexithymia is by the Levels of Emotional Awareness Scale (Lane, Quinlan, Schwartz, Walker & Zeitlin, 1990) in which a person's verbal responses to emotionally provoking situations are assessed. Reactions to emotional stimuli and differentiation of self from the other are some of the areas this tool measures.

Thus far self report measures have found to be the most widely used measure of assessment. The Toronto Alexithymia Scale (TAS- 20, Bagby, Parker & Taylor, 1994) demonstrates reliability and factorial validity across many cultures and languages. The TAS-20 assesses three facets, namely difficulty identifying feelings, difficulty describing feelings, and externally-oriented thinking. The TAS-20 has been the widely used measure and a wealth of data is present supporting its validity to predict both basic emotional processes as well as clinical criteria.

A newer self-report measure, the Bermond-Vorst Alexithymic Scale (Vorst and Bermond, 2001) correlates moderately with TAS-20 (Morera, Culhae, Watson & Skewes, 2005), very little research exists and its validity is not known.

Other self report measures are a set of variables in Rorschach to identify alexithymia by Porcelli & Meyer (2002), Beth Israel Psychosomatic Questionnaire by Taylor, Bagby, Luminet (2000), Observer Alexithymia Scale by Haviland, Warren, Riggs (2000) and Bermond-Vorst Alexithymia Questionnaire by Vorst & Bermond (2001). It has been found that these scales correlate with the TAS-20 (as cited in Taylor & Bagby, 2004).

Measurement of alexithymia has ranged from both quantitative and qualitative methods. Thus far TAS-20 has been the widely used as a current means of quantifying. It is worthwhile to remember that the above mentioned scales are an 'approximation' of alexithymia and there is a world of affective/cognitive factors that need to be considered.

5. Alexithymia and Psychological Intervention

In the 1960's and 70's, alexithymic patients were viewed as those who responded poorly to psychodynamic psychotherapy. Researchers have turned the focus to studying how pre-treatment alexithymia predicts prognosis.

Some of the disorders for which poor prognosis has been found is in anxiety and somatoform disorders (Bach & Bach, 1995), depression (Ogrodniczuk, Piper & Joyce, 2004), alcoholism (Cleland, Magura, Foote, Rosenblum & Kasnake, 2005; Loas, Fremaux, Otamani, Lecerle & Delahouse, 1997) functional gastrointestinal disorders (Porcelli et al., 2003) mixed psychiatric disorders (Mc Callum, Piper, Ogrodniczuk & Joyce, 2003) and complicated grief (Ogrodniczuk, Piper & Joyce, 2005).

In contrast some studies have found no influence or positive influence. Alexithymia was unrelated to outcomes of cognitive behavior therapy of obsessive compulsive disorder (Rufer et al., 2004) and a behavioral psoriasis symptom management program (Fortune, Richards, Griffiths & Main, 2004).

On positive note, alexithymic patients were likely to remain in group CBT for smoking cessation (Lumley, Downey, Stettner, Wehmer & Pomerleau, 1994) and better success in group CBT for Substance use (Rosenblum et al., 2005).

In a study on women undergoing in vitro fertilization alexithymia predicted better outcomes of treatment (Kakatsaki et al., 2004).

In one of its kind, a randomized controlled trial proving the efficacy of reduction in alexithymia by intervention by Beresnevaite (2000) studied the efficacy of group therapy in reducing alexithymia among coronary heart disease patients. The psychotherapy group (relaxation training, identifying and communicating feelings, imagery, music and non verbal emotional expression) had significant decline in alexithymic scores which was maintained for 2 year period. At 2 year follow-up those in the psychotherapy group experienced less cardiac events as compared those whose alexithymic scores did not change.

In a study by Tulipani, Morelli, Spedicato, Maeillo, Todarello & Porcelli (2010) studied the role of intervention in alleviating alexithymia and pain. A group of 52 consecutive patients enrolled in a multicomponent intervention programme (psycho-education, problem solving, cognitive re-structuring, stress management and relaxation training) as compared to a control group. Results of the study revealed that pain was strongly associated with alexithymia. Patients in the intervention group showed improvements in pain perception and alexithymia. Multiple regression showed that psychological intervention and alexithymia were independently associated with reduction in perception of pain.

Porcelli, Bagby, Taylor, Carne, Leandro & Todarello (2003) investigated if alexithymia can be a predictor of treatment outcome (psychological counselling / brief psychotherapy) in patients with functional gastrointestinal disorders. Compared with improved patients, unimproved patients were high on alexithymia. It is worth mentioning in this study that alexithymia emerged a significant predictor of treatment outcome.

Grabe et al. (2008) in an outcome study on psychotherapy

found that 25% of patients who seek psychotherapy are alexithymic. It is noteworthy that the type of psychotherapy used in this study was psychodynamic group therapy. The results of the study draw the conclusion that alexithymic features negatively affect long term outcome.

The question remains if it is able to 'treat' alexithymia. Lumley, Neely & Burger (2007) view this both from a clinical and theoretical perspective. Alexithymia a known risk factor can contribute to health problems and this can be studied by reducing or removing it and assessing if health improves.

Lumley, Neely & Burger (2007) in an attempt to address the above mentioned concepts highlight the following conclusions:

1. Although measurement tools in the construct of alexithymia are purely quantitative, it has its pitfalls as the concept of alexithymia is multifaceted. The dimension of affectivity and cognitive functioning are largely ignored.
2. The difference of opinion between alexithymia as trait or state has been researched recently. However, it is also important to look for a balance and presence of both these factors in an individual.
3. Lumley, Neely & Burger, (2007) suggest that cognitive behavior therapy is better suited for alexithymic individuals as it is 'structured' as compared to insight oriented or experiential therapies.

6. Future Directions

Recent studies have claimed that inconsistencies are present and have methodological problems in the epidemiological studies in alexithymia. Hence the need for systematic and prospective studies with sound research designs (Kojima, 2012).

Although research has shown that alexithymia is a stable trait, it is also known that it is subject to physical and/or psychological factors. Future studies can overcome this dilemma by repeatedly measurement of alexithymia in the same individual across standardized time frames (Kojima, 2012). In addition, researchers have suggested that the construct of alexithymia (state and trait) should not be viewed as dichotomous but as dynamic and multifaceted (Lumley, Neely & Burger, 2007).

Another research concern in alexithymia is measurement of confounding factors such as negative affect and social support. Hence during assessment it is suggested that these factors be measured simultaneously. Uniqueness of the construct of alexithymia has been under research as it overlaps with negative affect or is it a unique configuration of basic traits. It is worth mentioning that the three facets of Toronto Alexithymia Scale (TAS-20)-difficulty identifying feelings, difficulty describing feelings and externally oriented thinking have low to moderate correlations with neuroticism, introversion, and low openness respectively. This gives an insight into the three facets of alexithymia as having distinct validity (Kojima, 2012; Lumley, Neely &

Burger, 2007).

A closely linked concept 'alexisomia' has been coined by Ikemi (1986) referring to difficulty in the awareness of somatic sensations in addition to lack of awareness of emotions. This concept has been closely understood with the concept of alexithymia implying that deficits in awareness of somatic sensations are closely linked to awareness in emotional awareness. It is a well understood theory of emotion by William James (1884) that our emotions differ from one another because they are accompanied by different bodily responses and sensations. Hence if awareness of bodily states is the basis of emotional awareness there should be a problem of awareness of bodily sensations (alexisomia) of deficits of emotional awareness. Future directions in neuroimaging can thus give fresh insights to the study and interplay of both alexisomia and alexithymia.

7. Conclusions

The concept of alexithymia has aided our understanding of emotions and affect regulation. It has helped us understand etiology of not only psychiatric disorders but also illnesses which may have psychological causation. Current status of assessment of alexithymia has been feasible and highly accessible. Improvements in structured psychological interventions in the context of alexithymia have been proven and has given an impetus to move forward.

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