

## Measurement of Alexithymia: A Critical Evaluation

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### *Abstract*

Alexithymia refers to a cognitive - affective disturbance characterized by constricted fantasy experience and inability to recognise and verbalise emotions. The construct has evolved from the phase of clinical observation and description to systematic investigation. A number of measures have been developed to assess alexithymia. This paper critically examines the utility of the different measures, especially with reference to the Indian setting. Findings from recent studies have been highlighted.

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Key words -

**Alexithymia,  
Measurement,  
Critical evaluation**

Human beings are uniquely characterised by the presence of well developed language which serves the important function of communication. Communication of various emotional states is one aspect served by language. Emotions themselves have an adaptive function, as Charles Darwin noted many years ago [1]. Are there individuals who lack the ability to understand and verbally communicate their emotions? Would such a difficulty result in the development of disorders? If so of what nature? And how would such a disturbance influence the course and outcome of disorders?

Recently a series of investigations have begun examining these and other related issues under the rubric 'alexithymia'. This term was coined by Sifneos [2] and literally means 'lack of word for emotions' (a=lack, lexis=word, thymos=emotion). The alexithymic disturbance has been observed and described by several investigators [3], [4], [5]. Essentially this disturbance is characterized by

- (a) a characteristic inability to recognise and verbalise emotions
- (b) a striking paucity of fantasy experience, and in its place, the presence of thinking which is concrete, [3].

The clinical presentation of alexithymia has been described by several authors [6], [7], [8], [9]. Typically the alexithymic patient presents to the clinician with an elaborate description of his physical symptoms. His speech is replete with description of external events. He displays a striking paucity of fantasy experience. Because of his inability to communicate in psychological terms he elicits a reaction of boredom and frustration in the therapist. Though the disturbance was initially observed in patients suffering from a variety of psychosomatic disorders, it has subsequently been described in many other conditions [8], [9], [11].

Alexithymia has been distinguished from other psychopathological state like hypochondriasis, hysteria and obsessional characteristics [6], [9]. Hypochondriasis which is characterized by persistent somatic preoccupation may resemble

alexithymia. However, hypochondriacal patients are vocal. They also tend to go from doctor to doctor, often criticizing previous physicians for their lack of skill. In contrast alexithymic patients are described as passive and conforming. Patients with obsessional character structure, because of their isolation of affects may resemble alexithymics, but in contrast to the latter, have rich fantasy. Similarly the restriction of affect and fantasy in hysteria is circumscribed to the area of psychological conflict. Alexithymia is also to be distinguished from anhedonia [10]. The latter specifically refers to inability to experience pleasure.

Several articles have dealt at length with the historical evolution of the concept, the clinical presentation, the various disorders associated with alexithymia, aetiological theories, measurement aspects and treatment implications [7], [8], [9], [10], [11]. Most investigators have noted the important need for the reliable assessment of alexithymia as a first step in the validation of the concept.

This paper critically examines the various approaches used by investigators to assess alexithymia, and the strengths and weaknesses of these methods. Findings from recent studies have been highlighted, as also the measurement techniques suitable to the Indian setting.

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## **The measurement of alexithymia**

The various measures used to assess alexithymia could be classified as follows:

I. Interviewer rated scale

a) Beth Israel Hospital Psychosomatic Questionnaire (BIQ)

II. Self-Report measures

a) MMPI alexithymia scale

b) Schalling - Sifneos personality scale (SSPS)

Toronto alexithymia scale (TAS)

III. Projective techniques

a) Measures of verbal productivity

i) Thematic appreciation test (TAT) ii Assigned verbal task iii) Verbal productivity in response to movie display.

b) Rorschach test

c) Symbolic archetypal test (SAT-9)

IV. Formal speech analysis

V. Gottschach - Gleser content analysis of verbal behaviour

VI. Other measures

**I. Interviewer rated scale(a)**

### **The Beth Israel Hospital Psychosomatic Questionnaire (BIQ):**

This is a 17-item forced choice questionnaire devised by Sifneos [12]. It has 8 key alexithymia items. The BIQ is the most widely used measure of alexithymia [10], [11]. Most studies have used a cutting score of 6 and above for alexithymia as suggested by Sifneos. Several studies have examined the reliability and validity of BIQ but the findings have not been uniform. Apfel and Sifneos [7] reported high reliability with this instrument. Further they opined that brief training to half to one hour was sufficient for the use of this instrument. Kleiger and Kinsman [13] used videotaped interviews of 100 patients with chronic respiratory disease which were rated on BIQ by three judges. High interrater

reliability coefficients were reported. Federman and Mohns [14] used the BIQ on a sample of 56 migraine outpatients. Taperecorded interviews were rated by three raters. The authors obtained high reliability coefficients. Postone [15] carried out a study of alexithymia in chronic pain patients. Thirty minutes video-taped interviews of pain patients, (N=18), psychotherapy controls (N=19) and spouses of pain patients (N=9) were rated independently on the BIQ by two raters. The BIQ was found to have high reliability.

In contrast to the above four studies reporting high interrater reliability, two studies have failed to confirm the reliability of this instrument. Taylor and colleagues [16] used the BIQ along with other measures in 20 neurotic patients and 20 patients with inflammatory bowel disease. Separate audiotaped interviews of patients were rated by a psychiatrist and a psychologist. Authors obtained low inner rater agreement. Lolas et al [17] evaluated the BIQ on a sample of 16 patients. Two groups of raters - a group of interns in the last year of medical training and a group comprising of members of the teaching staff - rated the same cohort of patients. Inter rater agreement was noted to be poor. Authors concluded that experience of the interviewers was important in the assessment of alexithymia. In addition to the above two empirical studies, other authors [18], [19] have also noted problems in the interviewer assessment of alexithymia is subject to the bias of the interviewer. If the interviewer conducting the interview has limited psychotherapeutic skills, he is less likely to be sensitive to his own countertransference and might easily label a patient who presents with repetitive elaboration of physical symptoms as alexithymic. Similarly the style of the interview and interview setting might influence the observer's interpretation of the presence of alexithymia.

Notwithstanding these problems noted with the BIQ some recent studies have offered hope of revival of this instrument. Gardos et al [20], carried out a factor analytic study of the BIQ on 178 psychiatric patients. The authors obtained a four factor solution. The first factor which explained 42% of the variance had 7 of the 8 BIQ key alexithymia items. Factor 2 contained items which reflected impaired communication as a consequence of patient's paucity of words. Factor 3 characterized the person as verbal, intelligent, with rich fantasy. Factor 4 pertained to dream recall, psychosomatic illness and fantasy. Further, factors 1 & 2 correlated positively with somatization, phobic anxiety and obsessive compulsive clusters of the SCL - 90. The findings of this study are notable since the key alexithymia items have demonstrated convergent validity. The findings, however, have to be interpreted on the background of an important limitation. The authors did not carry out a reliability exercise.

Keltikangas - Jarvinen [21] assessed alexithymic characteristics in 107 patients with psychosomatic disorders in comparison to 86 patients with somatic illness. BIQ which was used in addition to other measures, was rated on a three point scale by psychologists who were blind to the group to which patients belonged. Patients with psychosomatic disorders obtained significantly higher scores compared to the control subjects, thereby demonstrating discriminatory validity of the instrument. However in this study too, no reliability exercise was carried out.

Sriram and colleagues [22], [23] noting the lack of guidelines to rate the BIQ developed certain probe questions to rate the BIQ. With this method it was possible to achieve adequate test-retest and inter-rater reliability. When administered to a sample of 116 normal subjects, the scale demonstrated adequate internal consistency. However the need to further refine the instrument was noted which include

- (a) rating on a three point scale instead of the present yes/no type of rating
- (b) deletion of conceptually similar items and inclusion of additional items and

(c) further refinement of probes.

One other important methodical issue in the interviewer assessment of alexithymia needs to be noted. Most of the above studies have rated subjects based on a single interview lasting about half an hour. In this author's opinion, it is preferable to perform the rating after interviewing the patient with focus on psychological exploration at least on two occasions. It is natural for most of the neurotic patients in our country to focus on their somatic symptoms during the initial interview. However following the establishment of a therapeutic relationship most of the patients display the ability of introspect and communicate their problems in psychological terms. Hence it is necessary for investigators not to rate patients following the initial brief interview as this method is likely to inflate the percentage of patients labelled as alexithymic.

In summary, it is possible for interviewers to assess alexithymic reliably after appropriate modification of the BIQ, if subjects are rated after a reasonable period of observation using certain uniform criteria.

## **II. Self report measures(a)**

### **MMPI alexithymia scale**

This is a 22 item subscale of the Minnesota Multiphasic Personality Inventory. This scale was developed by Keliger and Kinsman [13] on the basis of correlations with BIQ. The authors computed a cut off score of 14 and above as indicative of alexithymia. Though this scale has been used in several clinical populations, empirical studies examining its validity have noted serious deficiencies with this instrument. Doddy and Taylor [24] found that this scale failed to measure the central construct of alexithymia. Federman and Mohns [14] examining the validity of this scale found a tendency for an inverse correlation between BIQ and MMPI alexithymia scale. Perhaps what appears to be the major weakness in the development of this scale has been pointed out by Bagby and colleagues [25]. The 22 items of the scale were chosen from the 566 items of the MMPI based on significant differences in BIQ scores between those who answered true versus those answered false for each item. As noted by Bagby et al [25], by choosing a level of significance at 0.05, at least 28 items would have been chosen by chance alone. These observations make the MMPI alexithymia scale invalid as a measure of alexithymia.

(b)

### **Schalling - Sifneos Personality Scale (SSPS):**

This is a 20-item self report measure with a four point rating for each item [7]. A score of 50 and below is considered as alexithymia (Sifneos, Pers, Comm). Experience with this scale has shown it to be a poor measure of alexithymia. Apfel and Sifneos [7] found that the results on this scale were erratic with poor correlation to observer's assessment. Taylor and colleagues [16] found the scale to give erratic results.

Three studies have examined the factor structure of the SSPS in student populations. Blanchard and colleagues [26] evaluated the psychometric properties of the scale on a sample of 238 college students and obtained a three factor solution, with only 8 of the 20 items loading on any of the factors. Martin et al [27] using two separate samples of college students also obtained a three factor solution, with only seven items loading on any one of the factors. Bagby et al [25] examined the factor structure of the SSPS on a sample of 542 students. The scale was found to have poor internal consistency. Factor analysis yielded a 3 factor solution, with 8 of the items failing to load on any of the factors. Overall

these findings suggest that the SSPS is far from adequate as a valid measure of alexithymia.

Recently Sifneos [28] has revised the scale -SSPR-R. This scale also has 20 items, but the items are scored on a Yes/No dictotomy. The utility of this scale is not known since there are no reports published using this measure published reports which have used this measure.

(c)

### **The Toronto Alexithymia Scale (TAS):**

This is a 26-item scale with a 5-point Likert scoring. The scale was developed by Taylor et al [29] in an attempt to develop a self-report measure which would fulfill psychometric criteria. Based on an initial pool of 41 items which was administered to a sample of college students, the authors extracted a 26-item scale with good internal consistency. Factor analysis of the scale resulted in a four factor solution. These four factors, which were congruous with the principle dimensions of the alexithymia construct pertained to

- (a) ability to identify and describe feelings and to distinguish between feelings and bodily sensations,
- (b) ability to communicate feelings,
- (c) day dreaming,
- (d) externally oriented thinking.

The scale was found to have adequate reliability over one week and five weeks. It was found to have minimal response set bias and not unduly influenced by age, education and socio-economic status. The authors further evaluated the construct validity of the scale by administering it to a sample of 81 college students along with other measures of personality and psychopathology [30]. Results offered further validity of the scale. Recently authors have established cut off scores for TAS. A score of 74 and above is considered alexithymic, scores of 62 and below are considered non alexithymic (Taylor, Pers, Comm).

The TAS was evaluated for its utility in the Indian set up by Sriram and colleagues [22], [31]. The Kannada version of the TAS was prepared by a process of translation and back-translation, and administered to a sample of 116 normal subjects. The scale was found to have adequate internal consistency and test-retest reliability over a three month period. The mean scores obtained in the Indian sample were comparable to those obtained in the Canadian student population. When the scale was subject to factor analysis with varimax rotation, 4 factors were extracted, the first two factors measuring the chief dimensions of the alexithymia construct, viz. inability to recognize and verbalize emotions and pensee operateire. Further in a clinical study carried out by the authors, patients with psychogenic pain disorder scored significantly higher on this scale compared to a matched control group [32]. Also the scale correlated in the expected direction with two other measures of alexithymia, the BIQ and thematic appreciation test (TAT).

Some of the difficulties noted with the scale in Indian population were

- (a) difficulty experienced by the subjects in comprehending certain of the items especially those pertaining to day dreaming,
- (b) subjects' difficulty to respond to a 5-point scale. For its wider applicability in our set up this scale needs to be modified suitably.

In summary, self report measures overcome some of the problems associated with interviewer rated scales. However their utility rests on the presumption that subjects can accurately evaluate and report their alexithymia. Though some evidence has been obtained to support this view, it is not clear whether

subjects can accurately recognise all the aspects of their alexithymic disturbance. For example deficient symbolic thinking may not lend itself easily for self evaluation. This issue needs to be addressed to in future studies with the concurrent use of other measures. The other problems with respect of self report measures which are well recognised include distortions in rating as a result of social desirability responses, positional bias, defensiveness or overemphasis. Self report measures are also of limited utility for illiterate respondents. Hence at this stage of research it would be appropriate for investigators to use several types of measures.

### III. Projective tests(a)

#### **Measures of verbal productivity:**(i)Thematic appreciation test (TAT):

TAT has been used in some studies to elicit affect laden fantasy. The stories are generally analysed for their length (total word count) affective content (affect word count) and potential for expression of different affects (affect variability or affect vocabulary score). Additionally the use of adjectives and adverbs have also been analysed since they add to the affective expression. Defourney et al [33] using the TAT reported alexithymic characteristics in coronary patients with type A behavioural pattern. Two studies have compared psychosomatic patients with psychoneurotic patients for verbal productivity, on the presumption that psychosomatic patients would display diminished verbal productivity and affective expression. Von Rad and colleagues [34] compared a group of psychosomatic patients with a group of psychoneurotic patients on several verbal measures. Results on that TAT showed a trend for psychosomatic patients to produce shorter stories and use lesser affect laden words, but the differences were not statistically significant. In the study of Taylor et al [16], TAT was found to be the most useful measure in differentiating psychoneurotic and psychosomatic patients. The latter group produced significantly shorter stories and used lesser affect words. Also the affect vocabulary scores correlated in the expected direction with the length of stories and with human movement response on Rorschach test [35]. Another study [21] which compared patients with psychosomatic disorders and patients with somatic illness found emotional expression on the TAT to be a useful discriminator between the groups. However no further details are given as to how the variable was measured.

Volhardt et al [36] examined three groups of arthritis patients (two groups of rheumatoid arthritis and one group of arthritis due to other causes) using the TAT. The authors scored 5 variables (somatic reference, imaginative thinking, length of narrative, operative thinking and affective reference) which were based on four items of the BIQ. Using a well defined system of scoring the authors found not differences in alexithymia among the three groups. However this study, like all the three studies mentioned above did not use a normal control group.

In the Indian study, which is the only one so far to have used a normal control group for this variable, pain patients ended to produce shorter stories and use less affect words, but these results were not statistically significant [32]. Notably, the BIQ and TAS correlated in the expected direction with the length of stories. Similar tendencies were observed with respect to affect word count and affect variability count.

In summary, TAT measures have face validity and the different variables can be quantified. However the following points are worth noting with respect to this measure.

- 1) TAT measures of alexithymia have not been standardised. Hence studies to be meaningful must use normal control groups for comparison.

- 2) Stimulus variables (Eg. number and nature of cards presented), situation variables and motivational factors influence responses on TAT.
- 3) Length of stories need not always be reflective of fantasy as has been opined [35]. Subjects may simply give a redundant description of the TAT cards. Hence a specific measure of fantasy as used in some studies seems appropriate [36], [37].
- 4) It is often not easy to qualify words as affect laden or not. Besides affect can be expressed verbally [34], [37], [38], as they can provide further information on affective expression.
- 5) Potential for the use of affect words does not necessarily imply the absence of alexithymia. As Krysta [39] has pointed out, alexithymics might have learnt to use common expressions denoting effect based on inference rather than experience, like a colour blind person learns to make inferences based on cues.
- 6) TAT is likely to elicit all the dimensions of alexithymia construct. Consider for example, the alexithymic's focus on bodily sensations. It is unlikely that the TAT may pick up this dimension adequately.
- 7) TAT is a time consuming procedure, and would not be practical in clinical settings.

These considerations suggest that though TAT could be a useful measure of alexithymia, its limitations have to be borne in mind in evaluating the results.

(ii)Assigned verbal task:

This is a method similar to TAT except that the subjects are instructed to respond to a verbally presented task. The responses are analysed as with TAT. In the study of Von Rad and co-workers [34] the stimulus was in the form of a story which the patient was asked to continue. In the study of Taylor et al [16], the subjects were led to imagine a specific affect provoking situation and asked to describe their feelings and fantasies. In the former study this measure was relatively superior to TAT while reverse was the finding in the latter study.

(iii)Verbal Productivity in response to movie display:

Two studies [37], [38] have made use of screening of short films as a method of eliciting fantasy. Ahrens [38] conducted a study in which three groups of patients (somatic, psychosomatic and psychoneurotic) were shown two versions of a film depicting a physician performing an examination of the upper part of the stomach. In one version, the physician was shown as friendly and attentive, while in the other, he was shown as inattentive and indifferent. The patient's responses regarding their impression of the physician was recorded on a bipolar checklist of adjective pairs. In this analysis of conscious cognitive processes, psychosomatic patients tended to show alexithymic behaviour, but when evaluations were made of unconscious cognitive processes, alexithymic characteristics were not evident in psychosomatic patients.

Ten Houten et al [37] studied 8 patients who had undergone cerebral commissurotomy in comparison to 8 precision matched normal control for alexithymic characteristics. The stimulus presented consisted of a film intended to symbolize death and loss. The responses were subjected to 3 different levels of analyses: 4 lexical variables, 6 sentential variables and 6 global interpretive variables. All the three levels of analyses identified alexithymic characteristics in the commissurotomy group.

Some of the limitations noted with respect to TAT are also applicable to this method of assessment of alexithymia.

(b)

**Rorschach test:**

Some studies have used the Rorschach test to examine alexithymia. Vogt et al [40] defined the Rorschach phantasy syndrome as follows:

- 1) Number of M responses should be greater than 3 (M= Human movement),
- 2) Proportion of FC: (CF+C) should be either 0.5 or more (FC= Form Colour; CF=Colour form; C=colour),
- 3) There should be more than 25% of original responses,
- 4) The total number of responses for the 10 cards should be greater than 20,
- 5) There should be good variability of content i.e., more than 25% of the content categories should neither refer to man nor to animal and these responses can be assigned at least to three different content categories.

Using these criteria the authors found alexithymic characteristics in psychosomatic patients in contrast to the psychoneurotic group. Boren et al [41] found that, between two groups of patients divided on the basis of social class, Rorschach test did not show any difference except for human movement responses. Similarly in the study of Taylor and colleagues [16], only one variable, FC discriminated patients with inflammator bowel disease from psychoneurotic patients, while another study [21] found the Rorschach of no utility. In summary, Rorschach test is a time consuming procedure. The alexithymia indices on this tool have not yet been externally validated and need further systematic studies. As noted with TAT if this measure is to be used, inclusion of a normal control group for comparison is necessary.

c)

### **Rorschach Symbolic Archetypal Test (SAT-9):**

This is a grapho-projective test developed to assess symbolic function, with provision for objective scoring [42], [43], [44]. The subject is required to integrate 9 mythical items or symbols into a drawing, provide a written explanation of the drawing and answer an accompanying questionnaire in a self administered format. The 9 items include: Core items

- (1) which elicit anxiety : fall, devouring monster
- (2) which may be used to resolve anxiety: sword, refuge, something cyclical (which turns or progresses)
- (3) the resolving agent: character.

The Accessory items are those which reinforce the constructed myth: water, fire, animal. The objective of the test is the acknowledgment and resolution of anxiety elicited by some of the items using other items for that purpose, which requires imaginative processes. Patients with inhibited symbolic function are unable to use the items into a drawing or story and hence are unable to acknowledge or resolve anxiety. The scoring of the test is based on assigning points to the presence of the items and integration of the items in the drawing and written explanation. It has been claimed that the test is able to distinguish between primary and secondary alexithymia based on the absence of presence, respectively of a mythical infrastructure in the protocols [44]. The test has shown adequate internal consistency and inter-rater reliability [45], [46]. It correlated significantly with the BIQ in a sample of pain patients [44]. It did not correlate with Hy, Hs and D scale of the MMPI, demonstrating that the test was measuring an independent dimension [47]. The scores could also effectively discriminate between chronic pain patients and patients with surgical conditions [45].

The SAT-9 test, however measures only one dimension of the alexithymia construct viz. symbolic function [30]. It is a time consuming procedure. More importantly the test does not appear to be



applicable to the Indian situation since its cultural relevance is questionable.

#### **IV. Formal Speech analysis**

Overbeck [48] has attempted to operationalize alexithymic phenomena by the analysis of the speech-pause behaviour during therapy sessions using the Giessen speech analyser. In therapies with alexithymic subjects, Overbeck found higher percentage of silences, higher reaction time, higher number of long pauses which were often broken by the therapist, low speaking time during the entire therapy and increased therapists' speaking time. This line of enquiry, understandably is not suitable for clinical studies, but is likely to be a useful supplement to other measure in psychotherapy research.

#### **V. Gottschach - Gleser content analysis of verbal behaviour**

Gottschalk and Gleser in an attempt to overcome the limitations of interviewer rated scales and self report measures, developed a method of content analysis of verbal behaviour to assess various psychological states [49]. The theoretical framework on which this method was developed is eclectic, and includes behavioural, psychoanalytic and linguistic theories [50]. The scoring procedure is elaborate and has been illustrated by Gottschalk [50]. The method has undergone extensive testing in clinical and non-clinical populations. The standard instruction to elicit the speech sample requests the person to speak for five minutes on any dramatic or personal life experience, thus simulating a projective test situation. The method has also been applied to interviews, TAT responses, written verbal samples etc. Some of the well known Gottschach - Gleser measures include anxiety subscales (death anxiety, mutilation anxiety, separation anxiety, guilt anxiety, shame anxiety and diffuse anxiety), hostility subscales (hostility outward, hostility inward, ambivalent hostility) and hope scales.

Von Rad and co-workers [34] subjected the first 1000 words of the initial psychoanalytic interview of psychoneurotic and psychosomatic patients to the Gottschalk - Gleser method of content analysis. Psychosomatic patients scored lesser on separation anxiety, guilt anxiety, shame anxiety, diffuse anxiety and total anxiety. They also showed lesser hostility inwards, ambivalent hostility and total hostility. In a subsequent investigation [51], authors obtained different results when the same method was applied to speech samples obtained by different ways - one after the standard instruction, and the other obtained from the first psychoanalytic interview. In this investigation alexithymic features were evident only in the dyadic situation. Taylor and Doody [35] found that the anxiety, hostility and hope scales did not differentiate psychosomatic and psychoneurotic patients. Similar results were obtained by Ahrens [38] in a comparative study of psychosomatic, somatic and psychoneurotic patients.

To summarize, the Gottschach - Gleser method of content analysis is time consuming and requires thorough familiarity with the method of scoring. It has so far, not been evaluated in the Indian setting. Since this method seems to measure only immediate labile emotions and not stable traits, it is unlikely to prove a useful measure of alexithymic traits [35].

#### **VI. Other measures**

Recently investigators have initiated attempts to examine the neurophysiological correlates of alexithymia.

The role of right cerebral hemisphere in fantasy and emotional expression has been well noted [52], [53]. It has been hypothesized that alexithymia could be the result of left cerebral dominance [52], 'functional commissurotomy' (with consequent inaccessibility of emotions from right hemisphere to be verbalized through left hemisphere) [54], or right cerebral dysfunction [55]. Fricchione and Howanitz

[55] reported a patient with motor aprosodia as a result of haematoma in the right fronto-temporo-parietal area, who displayed alexithmic features. Cole and Baken [56], using conjugate lateral eye movements as a measure of hemispheric activity, noted a significant positive correlation between alexithmia scores and conjugate lateral eye movement, reflecting right cerebral activation. Ten Houten et al [57] found reduced EEG inter hemispheric coherence in patients with cerebral commissurotomy. They suggest the extension of this investigation to study patients with 'functional commissurotomy' to understand the neurophysiological basis of alexithymia. Other authors have noted to role of evoked potential studies [58], sleep laboratory studies [52], and even positron emission tomography [59] in the understanding of neurophysiology of alexithymia. While research on these lines is as yet preliminary, these measures are likely to be used more frequently in the future both to examine the theoretical models of alexithymia and also to strengthen the validity of clinical observations.

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### **Future implications of the concept of alexithymia to the Indian situation:**

The concept of alexithymia has a number of implications to the Indian setting, and has thrown open several potential areas for future systematic research. Several authors have noted that patients from non-western cultures present their psychological distress predominantly with somatic symptoms [60], [61], [62]. It has been opined that the ability to differentiate emotional experiences depends on the social context as well as the range of words available in the language [60]. It is quite likely that in some of the somatizers at least, the persistent nature of the somatic presentation is related to underlying alexithymic characteristics. Hence there is need to systematically evaluate alexithymic characteristics in these patients after suitable modification of the assessment instruments. It is also necessary to understand how alexithymia influence prognosis in these patients. Further systematic research should also be carried out to understand the relationship of alexithymia to sociodemographic and illness variables. Finally the treatment method most suitable to this group of patients have to be worked out.

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### **Conclusions**

The construct of alexithymia has evolved from the phase of clinical observation and description to the phase of systematic investigation. When on examining the development of the concept, one finds a striking resemblance to the evolution on similar psychological constructs. An excellent analogy is provided by the construct anxiety. As with the concept of anxiety, one finds in the delineation of alexithymia, the state/trait distinction [35], the primary/secondary distinction [63], the lack of specified relationship to disorders [36], the multidimensional nature of the phenomenon [29], some degree of overlap with other concepts [9], and a method of quantification through different assessment procedures. Presently there is a strong need for refining assessment methods. With respect to the Indian context, interviewer rated the self rated measures seem to be the most relevant, with suitable modifications as discussed earlier. Extending the analogy to the anxiety, it is likely that alexithymia would be included as a subcategory in a diagnostic interview schedules of the future.

1. Drawin C, *The Expression of Emotions in Man and Animals*. Univ of Chicago Press. Chicago 1965
2. Siufneos P E, *Short-term Psychotherapy and Emotional Crisis*. Harvard University Press.

Cambridge 1972

3. Marty P, de M' Uzan M, Pensee operateure', *Rev Fr Psychoanal Suppl* Page: 27 pp 1345-1356, 1963
4. Krystal H, *Massive Psychic Trauma. International University Press New York* 1968
5. Nemiah J C & Sifneos P E, Affect and fantasy in patients with psychosomatic disorders  
*In Hill O (Ed). Modern trends in psychosomatic medicine vol. 2, Butterworth, London* 1970
6. Nemiah J C, Alexithymia: a view of the psychosomatic power  
*Carrier Foundation Letter* Page: 49, 1979
7. Apfel R J & Sifneos P E, Alexithymia: concept and measurement  
*Psychotherapy & Psychosomatics* Page: 32: 180-190, 1979
8. Lesser I M, A review of the alexithymia concept  
*Psychosomatic Medicine* Page: 43: 531-545, 1981
9. Lesser I M, Current concepts in psychiatry: alexithymia  
*New England Journal of Medicine* Page: 312: 690-692, 1985
10. Krystal H, Alexithymia and the effectiveness of psychoanalytic treatment  
*International Journal of Psycho Analysis & Psychotherapy* Page: 9: 353-377, 1982
11. Taylor G J, Alexithymia: concept, measurement and implications for treatment  
*American Journal of Psychiatry* Page: 145: 752-732, 1984
12. Sifneos P E, The prevalence of 'alexithymic characteristics in psychosomatic patients  
*Psychotherapy & Psychosomatics* Page: 22: 255-262, 1973
13. Kleiger J H & Kinsman R A, The development of an MMPI alexithymia scale  
*Psychotherapy & Psychosomatics* Page: 34: 17-24, 1980
14. Federman R & Mohns E, A validity study of MMPI alexithymia subscale conducted on migraine headache outpatients  
*Psychotherapy & Psychosomatics* Page: 41: 29-32, 1984
15. Postone N, Alexithymia in chronic pain patients  
*General Hospital Psychiatry* Page: 8: 163-167, 1986
16. Taylor G, Doody K & Newman A, Alexithymic characteristic in patients with inflammatory bowel disease  
*Canadian Journal of Psychiatry* Page: 26: 470-474, 1981
17. Lolas F, de la Parra G, Aronsohn S & Collin C, On the measurement of alexithymic behaviour  
*Psychotherapy & Psychosomatics* Page: 33: 139-146, 1980
18. Wolff H H, The contribution of the interview situation to the restriction of fantasy life and emotional experience in psychosomatic patients  
*Psychotherapy & Psychosomatics* Page: 28: 58-67, 1977
19. Schneider P B, The observer, the psychosomatic phenomenon and the setting of the observation  
*Psychotherapy & Psychosomatics* Page: 28: 36-46, 1977
20. Gardos G, Schneibolk S, Mirin S M, Wolk P C & Rosenthal K L, Alexithymia: toward validation and measurement  
*Comprehensive Psychiatry* Page: 25: 278-282, 1984
21. Keltikangas - Jarvinen L, Concept of alexithymia : the prevalence of alexithymia in psychosomatic patients  
*Psychotherapy & Psychosomatics* Page: 44: 132-138, 1985
22. Sriram T G, Alexithymia : a controlled study in patients with psychogenic pain disorder  
*M D dissertation, Bangalore University* 1986
23. Sriram T G, Pratap L & Shanmugam V, Towards enhancing the utility of Beth Israel Hospital

- Psychosomatic Questionnaire (BIQ)  
*Psychotherapy & Psychosomatics (In press)*
24. Doody K & Taylor G, Construct validation of the MMPI alexithymia scale: In: Krakowsky A J & Kimball CP (Eds)  
*Psychosomatic Medicine: Theoretical, Clinical and Transcultural Aspects. Plenum Press New York*  
 Page: pp 17-24, 1983
25. Bagby R M, Taylor G J & Ryan D P, The measurement of alexithymia : Psychometric properties of the Schulling Sifneos personality scale  
*Comprehensive Psychiatry* Page: 27: 287-294, 1986
26. Blanchard E B, Arena J G & Pallmeyer T P, Psychometric properties of a scale to measure alexithymia  
*Psychotherapy & Psychosomatics* Page: 35: 67-71, 1981
27. Martin J B, Phil R O & Dobkin P, Schalling - Sifneos personality scale: findings and recommendations  
*Psychotherapy & Psychosomatics* Page: 41: 145-152, 1984
28. Sifneos P E, The Schalling - Sifneos personality scale revised  
*Psychotherapy & Psychosomatics* Page: 45: 161-165, 1986
29. Taylor G J, Ryan D & Bagby R M, Towards the development of a new self report alexithymia scale  
*Psychotherapy & Psychosomatics* Page: 44: 191-199, 1985
30. Bagby R M, Raylor G J & Ryan D, The toronto alexithymia scale: relationship with personality and psychopathology measures  
*Psychotherapy & Psychosomatics* Page: 45/4 07-215, 1986
31. Sriram T G, Chaturvedi S K, Gopinath P S & Subbakrishna D K, Assessment of alexithymia: Psychometric properties of the toronto alexithymia scale (TAS) - a preliminary report  
*Indian Journal of Psychiatry* Page: 29: 133-138, 1987
32. Sriram T G, Chaturvedi S K, Gopinath P S & Shanmugam V, Controlled study of alexithymic characteristics in patients with psychogenic pain disorder  
*Psychotherapy & Psychosomatics* Page: 47: 11-17, 1987
33. Defourney M, Hubin P & Luminet L, Alexithymia, 'pensee operateire' and predisposition to coronopathy: pattern 'A' of Friedman and Rosenman  
*Psychotherapy & Psychosomatics* Page: 27: 106-114, 1976/77
34. Von Rad M, Drucke M, Knauss W & Lolas F, Alexithymia: a comparative study of verbal behaviour in psychosomatic and psychoneurotic patients. In: Gottschalk L A (Ed)  
*The Content Analysis of Verbal behaviour. Further Studies* Page: pp 643-673 Spectrum, Jamaica, 1979
35. Taylor G J & Doody K, Verbal measures of alexithymia: What do they measure  
*Psychotherapy & Psychosomatics* Page: 43: 32-27, 1985
36. Volhardt B R, Ackerman S H & Shindledecker R D, Verbal expression of affect in rheumatoid arthritis patients: a blind controlled test for alexithymia  
*Acta Psychiatrica Scandinavica* Page: 74: 73-79, 1986
37. Ten Houten W D, Hoppe K D, Bogen J E & Watter D O, Alexithymia : An experimental study of cerebral commissurotomy patients and normal control subjects  
*American Journal of Psychiatry* Page: 143: 312-316,
38. Ahrens S, Alexithymia and affective verbal behaviour of three groups of patients  
*Social Science Medicine* Page: 20: 691-694, 1985
39. Krystal H, Alexithymia and Psychotherapy  
*American Journal of Psychotherapy* Page: 33: 17-31, 1979

40. Vogt R, Burckstummer G, Ernst L, Meyer K & Von Rad M, Differences in phantasy life of psychosomatic and psychoneurotic patients  
*Psychotherapy & Psychosomatics* Page: 29: 98-105, 1977
41. Borens R, Grosse - Schulte E, Jaensch W & Kortemme K H, Is 'alexithymia' but a social phenomenon? An empirical investigation in psychosomatic patients  
*Psychotherapy & Psychosomatics* Page: 28: 193-198, 1977
42. Demers - Desrosiers L A, Influence of alexithymia on symbolic function  
*Psychotherapy & Psychosomatics* Page: 38: 103-120, 1982
43. Cohen K R, Demers - Desrosiers L A & Catchlove R F H, The SAT-9: a quantitative scoring system for the AT-9 test as a measure of symbolic function central to alexithymia presentation  
*Psychotherapy & Psychosomatics* Page: 39: 77-88, 1983
44. Demers-Desrosiers L A, Cohen K R, Catchlove R F H & Ramsay R A, The measure of symbolic function in alexithymic pain patients  
*Psychotherapy & Psychosomatics* Page: 39: 65-76, 1983
45. Cohen K, Auld F, Demers I & Catchlove R, Alexithymia: The development of valid and reliable projective measure (the objectively scored archetypal - 9 test)  
*Psychotherapy & Psychosomatics* Page: 173: 621-627, 1985
46. Bourke M P, Taylor G, Crisp A H, Symbolic functioning in anorexia nervosa  
*Journal of Psychiatric Research* Page: 19: 273-278, 1985
47. Catchlove R F H, Cohen K R, Braha R E D & Demers-Desrosiers L, Incidence and implications of alexithymia in chronic pain patients  
*Journal of Nervous & Mental Diseases* Page: 173: 246-248, 1985
48. Overbeck G, How to operationalize alexithymic phenomena-some findings from speech analysis and the Giessen Test (GT)  
*Psychotherapy & Psychosomatics* Page: 28: 106-117, 1977
49. Gottschalk L A & Gleser G, *The Measurement of Psychological States through Content Analysis of Verbal Behaviour*. Univ of California Press Los Angeles 1969
50. Gottschalk L A, Quantification and psychological indicators of emotions: the content analysis of speech and other objective measures of psychological states In Gottschalk L A (Ed)  
*The Content Analysis of Verbal Behaviour. Further Studies* Page: pp 541-563 Spectrum. Jamaica, 1979
51. Von Rad M & Lolas F, Empirical evidence of alexithymia  
*Psychotherapy & Psychosomatics* Page: 38: 91-102, 1982
52. Flannery J & Taylor G, Integrating psyche and soma: Psychoanalysis and neurobiology  
*Psychotherapy & Psychosomatics* Page: 26: 15-23, 1981
53. Ross E, The aprosodias: functional-anatomic organization of the affective components of language in the right hemisphere  
*Archives of Neurology* Page: 38: 561-569, 1981
54. Hoppe K D & Bogen J E, Alexithymia in twelve commissurotomized patients  
*Psychotherapy & Psychosomatics* Page: 28: 148-155, 1977
55. Fricchione G & Howanitz E, Aprosodia and alexithymia - a case report  
*Psychotherapy & Psychosomatics* Page: 43: 156-160, 1985
56. Cole G & Bakan P, Alexithymia hemisphericity and conjugate and lateral eye movements  
*Psychotherapy & Psychosomatics* Page: 44: 139-143, 1985
57. Ten Houten W D, Walter D O, Hoppe K D, Bogen J E, Alexithymia and split brain: EEG alpha band interhemispheric coherence analysis  
*Psychotherapy & Psychosomatics* Page: 47: 1-10, 1987

- 58.Lolas F, Event related slow brain potentials, cognitive processes and alexithymia  
*Psychotherapy & Psychosomatics* Page: 30: 116-129, 1978
- 59.Lesser I M & Lessr B Z, Alexithymia: examining the development of a psychological concept  
*American Journal of Psychiatry* Page: 140: 1305-1308, 1985
- 60.Leff J P, The cross-cultural study of emotions  
*Culture, Medicine & Psychiatry* Page: 1: 317-350, 1977
- 61.John C J, Phenomenology of neuroses: A cross-sectional investigation in two different treatment settings  
*Unpublished M D dissertation Bangalore University* 1986
- 62.Srinivasan K, Murthy R S & Janakiramaiah N, A nosological study of patients presenting with somatic complaints  
*Acta Psychiatrica Scandinavica* Page: 78: 1-5, 1986
- 63.Freyberger H, Supportive psychotherapeutic techniques in primary and secondary alexithymia  
*Psychotherapy & Psychosomatics* Page: 28: 337-342, 1977
-