



Study of Alexithymia in Relation to General Health, Somatic Health and Social Support among Institutionalized and Non Institutionalized Adolescents

Rajesh Kumar¹ and Roshan Lal²

¹Department of Psychology, P.G. Govt. College, Sector-46.

²Department of Psychology, Panjab University, Chandigarh.

ARTICLE INFO

Article history:

Received: 24 July 2017;

Received in revised form:

19 September 2017;

Accepted: 28 September 2017;

Keywords

Mental health,
Somatic health,
Institutionalization,
Alexithymia.

ABSTRACT

Adolescence, as the last developmental stepping stone to adulthood, is a period of pronounced growth and change. Alexithymia is primarily seen as a personality constructs a trait. It means difficulty to express feelings. It affects ones mental health and somatic health positively or negatively. Social support helps the person to maintain mental health. The aim of the present investigation is to study the alexithymia in relation to general health, somatic health and social support among institutionalized and non institutionalized adolescents. The sample for the study consists of 100 institutionalized and 100 non institutionalized adolescents ranging in the age of 16 to 19 years selected randomly from Punjab, Haryana and Chandigarh. TAS-20 Hindi version used to measure alexithymia (Bagby, Parker, & Taylor, 1994), General Health Questionnaire (GHQ- 28) by Goldberg, 1978, Somatic Health Complaints by Urmila Rani Srivastava and Social Support Questionnaire by Sarason et al., 1983. Descriptive statistics, correlation and 2X2 ANOVA (for main and interaction effect) were used. The calculated values show the significant association of general health with the somatic health as the values comes out to be .311 and between general health and satisfaction with social support the value found to be -.183. It was found that there was no interaction effect between alexithymia and type of stay on general health. There was significant main effect of alexithymia on GH total and SHC as the values comes out to be 0.00. The values disclosed that there was significant interaction effect of both the independent variables i.e. alexithymia and type of stay on perceived social support. The calculated F-value found to be 3.931 which is significant at 0.05 level.

© 2017 Elixir All rights reserved.

Introduction

Adolescence is a transitional stage of human development that involves biological (i.e. pubertal), social, and psychological changes in preparation for adulthood. This stage of development is marked by a socialization process whereby youth are actively engaged in social interactions with various individuals, authority figures, groups, and networks of the family, community, peer group, the school and other predominant institutions.

Adolescence, as the last developmental stepping-stone to adulthood, is a period of pronounced growth and change. This time of transition, while fraught with stress, is filled with opportunity. The adolescent is confronting the solidification of skills, the formation of a matured persona, and the formulation of decisions for the future. Emotionally, adolescents are self-conscious and vulnerable. Prone to extreme self focus and exaggeration, often they are overly concerned with what others think of them.

From a developmental perspective, identifying and expressing emotions is a process that starts at birth, and continues and intensifies in late adolescence and early adulthood.

Awareness of own emotions and emotional processes as well as expression of emotions requires reflective and abstract thinking.

The lack of emotional expressiveness can be tied to the psychology of emotions. The concept of alexithymia was coined by psychiatrist Peter Sifneos to describe the lack of emotional skills in psychosomatic patients (Sifneos, 1973). Alexithymia signifies a personality construct typically represented by reduced ability to identify and verbalize feelings, a less vivid imagination, and an externally oriented, concrete way of thinking. Literally, alexithymia stands for 'no words for feelings' and is a neologism based on three Greek words: a = 'lack', lexis = 'word' and thumos = 'emotion or mood'.

Alexithymia is primarily seen as a personality constructs a trait (Taylor & Bagby, 2004; Taylor, 2000). It is thought to reflect a deficit in cognitive processing and regulation of emotions (Taylor et al., 1997a,b). Adverse childhood experiences, including low maternal care, general family pathology and both mental and physical abuse, living in foster homes and orphan homes, cultural differences have been proposed as psychosocial etiological factors for alexithymia.

The home and the school are the two important institutions that prepare children to become functional members of society. Society places great importance on educating its youth, recognizing that the acquisition of specialized skills and knowledge facilitates upward social mobility. Human child cannot grow up without some adult care and love.

Some children are placed as infants in institutions such as “children homes”, or hospitals where they live more or less deprived of ordinary parenting. The essential features of institutionalization are that the children are deprived of normal care and affection which they should have received in their own home. It is pointed that institutions lack warmth and physical contact; there is less intellectual, social, and emotional stimulation and above all, lack of encouragement and help in positive learning.

Children who are living with their parents have more feelings of security, and source of affection and acceptance, regardless of what they do. They are also fortunate to have good models, proper guidance in learning skills needed for adjustment, and stimulation of their abilities to achieve success. Children who are living away from home lack the immediate presence of loving parents to appraise their success. They are always under tension to secure the proper kind of attention from those who are looking after them. Measures of both received support and perceived available support typically assess respondents’ perceptions of several support functions that are provided through social relationships.

Social support has been defined as any process whereby social relationships promote health and well-being (Cohen, Gottlieb, & Underwood, 2000). The various types of social relationships that have been studied include romantic partners, friends and family members. Deficits in social support have been found to affect a variety of mental health constructs, including depression (Lakey & Cronin, 2008).

Social network members, such as family, friends and community members, can provide social support in the form of positive interaction and appraisal that guard against a negative self image and feelings of worthlessness. Social support matters for mental health. The mediator effect model of social interaction posits that “the impact of a stressor is mediated by social interactions with others; these positive and negative social interactions, in turn, either increase or decrease one’s vulnerability to psychological distress (Lincoln et al., 2003). Social support is generally defined as a range of interpersonal relationships or connections that have an impact on the individual’s functioning, and generally includes social support provided by individual and social institutions. Social support helps the individual in mental health.

Health is an indispensable quality in human being. It has been described as soil from which the finest flowers grow. Health indicates psychosomatic well-being. To Bhatia (1982) “Health is a state of being hale, sound or whole in body and mind.” Bhatia (1982) considers mental health as the ability to balance feelings, desires, ambitions and ideals in one’s daily living. It means the ability to face and accept the realities of life. Several psychologists and psychiatrists have presented different criteria of positive/good mental health.

Jahoda (1958) has noted following six aspects of positive mental health attitudes of an individual toward his own self: the accessibility of the self to consciousness, the correctness of the self-concept, and its relation to the sense of identity

and the acceptance by the individual of his own self; growth, development, or self-actualization; integration; autonomy; perception of reality; and environmental mastery.

Living in deteriorating neighborhoods may have both direct and indirect effects on the experience of stress (Gee & Payne-Sturges, 2004). An individual in a deteriorating neighborhood may directly experience the stress associated with living in a residence needing repairs, exposing the individual to extreme temperatures, damaged appliances and fixtures (e.g., lighting; plumbing), and to potentially dangerous conditions such as exposed nails or peeling paint. If an individual lives near deteriorating buildings, the indirect effects could include the strain of living in a neighborhood with declining home values, concerns with safety and crime associated with living near abandoned or damaged properties, and concerns with high resident turnover that often occurs in economically depressed neighborhoods.

Somatization is the expression of emotional discomfort and psychosocial stress in the physical language of bodily symptoms (Barsky and Klerman, 1983). Lipowsky (1988) defines it as “the manifestation of psychological difficulty or distress through somatic symptoms, a tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness and to seek medical help. It encompasses a wide spectrum of symptoms referred to various organs”.

The term ‘somatization’ was first used by Stekel (1943) who defined it as “a bodily disorder that arises as the expression of a deep-rooted neurosis, especially of a disease of the conscious”. He regarded it as identical to Freud’s concept of conversion.

Patients, who experience somatic symptoms without demonstrable organic disease or in excess of what one would expect on the grounds of objective medical findings, are a common and difficult problem in both primary care and general psychiatric practice. Such patients are often misunderstood and are thus over investigated, resulting in mental and financial strain.

Alexithymia is thought to be connected with somatisation. Alexithymic individuals and somatisation frequently attend the primary health centres (Joukamaa et al. 1995). Some alexithymic patients who are distressed are not able to speak about their emotional problems, and therefore, they depend on somatisation and frequently visit various outpatient health care services. Thus, a need was felt to assess alexithymia and psychological distress of the patients attending the psychiatric outpatient department to seek help for somatic complaints.

Review of Literature

A study conducted by Altshuler and Poertner (2002) emphasized on assessing well-being in group homes and institutions. Authors found “Youth living in group homes or institutions take more risks, have more threats to achievement, and have poorer peer influences.” “The apparent inability of the system to provide this critically important function and protective factor in the absence of the youths’ parents is of concern. It is crucial to help these youth connect with an adult who can provide needed support and guidance as these youth transition into the community. It is disturbing to think that the environments in which these youth live are not providing them with such adult guidance....” Youth in the study appeared to be doing well in terms of resilience and problem-solving skills, and feelings of safety.

Hodges & Tizard, (1989) studied 39 of the formerly institutionalized children and compared each institutionalized adolescent with a comparison 16-year-old who was matched based on sex, one-or two-parent family, occupational classification of primary income earner, and position in family. They found that there was evidence that, as a group, ex-institutional children had more behavioural and emotional difficulties than comparison children. Children who had spent at least the first 2 years of their life in residential care were likely at age 16 to have more social and emotional problems than other children, and more disruption in their lives.

The German psychoanalyst Reusch (1948) observed that many patients suffering from posttraumatic syndrome, "classical" psychosomatic disease or other chronic illnesses manifest difficulty in the verbal and symbolic expression of emotion. He referred to these patients as "infantile personalities".

Lesser, Ford and Friedman (1979) had found alexithymia to be present equally in patients of somatising and nonsomatizing psychotherapy. However, Shipko (1982) found alexithymia to be significantly more prevalent in somatizers than in healthy subjects with classical psychosomatic illness in the absence of somatisation.

Fukunishi, Meada, Kubota, Tomino and Rahe (1995) examined the relationship between alexithymia and psychosocial factors in 72 peritoneal dialysis patients, and compared them with 73 healthy volunteers. The alexithymia scores were significantly and positively correlated with anxiety, which may be due to the dialysis therapy. After 3 years of follow up consultations, patients were still showing higher scores on alexithymia and anxiety; however alexithymia scores were not correlated with anxiety scores but rather were significantly associated with poor social support. Thus, availability of social support concluded to be related to alexithymic characteristics.

Gutzmann (2000) in his review of 22 studies concluded that depressive symptoms which are one of the most frequent psychiatric presentations in late life, are due to increased tendency to alexithymia and somatisation. Somatic diseases, functional disability and comorbid physical illnesses may be present but the relevant risk factors are social isolation and decreased social participation in daily life.

Need for the Study

Around the world, adolescence is a time of opportunities as well as vulnerabilities to risk-associated behaviors that can have lifelong consequences for health and well-being. Many researchers have called for more attention to and more research on where and why adolescents seek help and the sources of and nature of help available to them in their specific contexts (i.e. social support). But literature is not highly expressive on the difficulties getting support by adolescents, even though numerous institutions and sources are available. Alexithymia (representing to those dispositions) have been identified or estimated as one of the factors responsible, and further resulting to the poor mental health. Living in hostile and insecure environment, facing harsh realities at young age and deprived of stimulating and encouraging environment, the deprived children are likely to develop negative self-concept, low ego strength and feel alienated. The mediating or moderating, which role social-support and alexithymia play with each other, affecting mental health of an individual in various situations, was the

centre of attraction of researcher. Support, here means both (quantitative as well as qualitative, that also perceived).

Objectives

- To study the relationship between general health, somatic health and social support among adolescents.
- To study general health, somatic health and social support of alexithymics institutionalized and non institutionalized adolescents.

Hypotheses

On the basis of review of literature following hypotheses are formed:

- It is expected that there exist positive relationship between dimensions of general health (Physical health problems, anxiety, social dysfunction and severe depression) and somatic health complaints.
- It is expected that there exist negative relationship between dimensions of general health and dimensions of social support (perceived social support and satisfaction).
- It is expected that there is interaction effect of alexithymia and type of stay (institutionalized and non institutionalized) on general health, somatic health and social support among adolescents.

Methodology

Sample

The aim of the present study is to investigate the alexithymia in relation to general health, somatic health and social support among institutionalized and non institutionalized adolescents. To fulfill the objectives of the study a sample 200 adolescents (100 institutionalized and 100 non institutionalized) were selected. 100 institutionalized were randomly selected from various institutions of Chandigarh. The age ranged of the samples from 16-19 years and were studying in 11-12 standards.

Alexithymia	TYPE OF STAY		Total
	Institutionalized	Non Institutionalized	
High Alexithymia	50	50	100
Low Alexithymia	50	50	100
Total	100	100	200

Tools Used

Toronto Alexithymia Scale (TAS-20) by Bagby et al.(1994) used to measure alexithymia. It includes 20 items and rated on 5 point rating scale ranging from strongly agree (1) to strongly disagree (5). Sample includes items like "I am often confused about what emotion I am feeling", "People tell me to describe my feelings more". TAS-20 is high on test-retest reliability i.e. ($r = 0.77$). For this scale internal reliability is 0.83.

Social support Questionnaire (SSQ) by Sarason et al., (1983) used to measure two aspects of social support i.e. number of persons from whom support is received and overall satisfaction with social support received from these persons. Questionnaire consists of 27 items each of the item asks a question to which a two-part answer is required. The item asks the subject (a) to list the people to whom they can rely upon in given sets of situations for help; (b) report the satisfaction level on 6-point rating scale ranging from 1-very dissatisfied to 6-very satisfied. The cronbach's alpha for internal reliability was 0.97.

General Health Questionnaire (GHQ-28) by Goldberg (1978) was used to measure mental health of the adolescents. It has 4 dimensions and includes 28 items having 7 items in each dimension.

GHQ A deals with physical health problems; GHQ B represents autonomic health; cognitive aspect of mental health is covered under the heading of GHQ C and GHQ D is for severe depression status. Higher the score on each dimension higher will be the prevalence of categorical mental health. Each item is responded on 4 point rating scale, for four alternatives. This scale is high on reliability i.e. 0.86 alpha and it ranges from 0.84 in Russia to 0.89 in Ukraine.

Somatic Health Complaints (SHC) by Urmila Rani Srivastava () used to measure health complaints of the institutionalized adolescents. It consists of

Procedure

After taking permission from various head of the institutions, rapport was built up with the subjects, the tools of the study i.e., TAS-20, GHQ-28, SSQ and SHC were administered and scoring was done with the help of keys of respective questionnaires. After calculations, the adolescents were divided into two group i.e. high alexithymia and low alexithymia. Only those samples were included in the high alexithymia who scored above 60 and the remaining sample were included in the low alexithymia group.

Statistical Analysis

For the analysis of the data descriptive statistics, correlation and 2X2 analysis of variance (ANOVA) are used.

Results and Discussion

The above table depicts the correlation values of the variables i.e., general health (with dimensions), somatic health complaints and dimensions of social support (perceived social support and satisfaction with social support). It was revealed that GHA (physical health problems), GHB (anxiety), GHD (severe depression) and GH total was significantly and positively related with somatic health complaints.

The correlational value comes out to be .243, .338, .289, .311 which is significant at 0.01 level.

Table I. shows the correlation between all the variables i.e. perceived social support, mental health and somatic health.

Variables	GHA	GHB	GHC	GHD	GH TOTAL	SHC	SSN	SSS
GHA	1	.518**	.290**	.383**	.722**	.243**	-.071	-.183**
GHB		1	.400**	.555**	.846**	.338**	-.026	-.169*
GHC			1	.351**	.632**	.036	-.083	-.007
GHD				1	.754**	.289**	-.076	-.030
GH TOTAL					1	.311**	-.037	-.131
SHC						1	.112	-.10
SSN							1	.346**
SSS								1

Note: *significant at 0.05 level,

**significant at 0.01 level

GHA – Physical Health problems

GHB – Anxiety

GHC – Social Dysfunctions

GHD - Severe Depression

GH TOTAL – General Health Total

SHC – Somatic Health Complaints

SSN – Perceived social support

SSS – Satisfaction with the social support

Table II. Shows the analysis of variance of General Health.

Sources of Variances	Sum of squares	Df	Mean sum of squares	F Values	Level of significance
Type of stay	.125	1	.125	.001	.977
Alexithymia	1053.405	1	1053.405	7.307	.007**
Type of stay X Alexithymia	7.605	1	7.605	.053	.819
Within Treatment	28254.740	196	144.157		
Total	138127.000	200			

Note: Type of stay: 2 levels: institutionalized and non institutionalized

Alexithymia: 2 levels: high alexithymia and low alexithymia

**significant at 0.01 level

Gutzmann (2000) also found in his review of 22 studies that depressive symptoms which are one of the most frequent psychiatric presentations in late life, are due to increased tendency to alexithymia and somatisation. Somatic diseases, functional disability and comorbid physical illnesses may be present but the relevant risk factors are social isolation and decreased social participation in daily life.

It was also found in the present study that GHA, GHB, GHC, GHD and GH total was insignificantly and negatively related with perceived social support (SSN).

The values comes out to be -.071, -.026, -.083, -.076, -.037 which also depicts the weak correlation between them. It was also revealed that GHA and GHB was significantly and negatively related to satisfaction with the support. The correlational value found to be -.183 and -.169. However, GHC, GHD and GH total was insignificantly and negatively related with satisfaction with the social support (SSS). The values comes out to be -.007, -.030 and -.131 which again also depicts the weak and negative relationship between variables. With somatic health complaints the perceived social support and satisfaction with support found to be insignificant and weak association. The correlational value comes out to be negative with perceived social support i.e., -.112 and negative with satisfaction with the social support i.e., -.100

Table II reveals the main effect and interaction effect of type of stay and alexithymia on general health. It was found that there is no interaction effect between type of stay and alexithymia on general health of the adolescents as the alpha value comes out to be .819 which is greater than 0.05 alpha. However, results revealed that there is significant effect of alexithymia on general health of the adolescents.

Table III . Shows the analysis of variance of Somatic Health Complaints.

Sources of Variances	Sum of squares	Df	Mean sum of squares	F Values	Level of significance
Type of stay	307.520	1	307.520	1.564	.213
Alexithymia	5020.020	1	5020.020	25.259	.000**
Type of stay X Alexithymia	512.000	1	512.000	2.604	.108
Within Treatment	38541.960	196	196.643		
Total	592486.000	200			

Note: Type of stay: 2 levels: institutionalized and non institutionalized

Alexithymia: 2 levels: high alexithymia and low alexithymia

**significant at 0.01 level

Table IV. Shows the analysis of variance of Perceived Social Support.

Sources of Variances	Sum of squares	df	Mean sum of squares	F Values	Level of significance
Type of stay	499.280	1	499.280	.995	.320
Alexithymia	1352.000	1	1352.000	2.693	.102
Type of stay X Alexithymia	950.480	1	950.480	1.894	.170
Within Treatment	98385.120	198	501.965		
Total	448298.000	200			

Note: Type of stay: 2 levels: institutionalized and non institutionalized

Alexithymia: 2 levels: high alexithymia and low alexithymia

**significant at 0.01 level

Table III reveals the interaction and main effect of type of stay and alexithymia on somatic health complaints. The values revealed that alexithymia effects somatic health complaints of the adolescents and it is significant at 0.01 level. It was also found that there is no interaction effect between type of stay and alexithymia on somatic health complaints of the adolescents as the alpha value comes out to be .108 which is less than 0.01 alpha.

Table IV reveals the interaction and main effect of type of stay and alexithymia on perceived social support. The values revealed that type of stay and alexithymia effects perceived social support of the adolescents and it is insignificant at 0.05 level. It was also found that there is no interaction effect between type of stay and alexithymia on perceived social support of the adolescents as the alpha value comes out to be .170 which is greater than 0.05 alpha.

Table V reveals the interaction and main effect of type of stay and alexithymia on satisfaction with social support. The values revealed that type of stay and alexithymia effects satisfaction with social support of the adolescents and it is insignificant at 0.05 level. It was also found that there is interaction effect between type of stay and alexithymia on satisfaction with social support of the adolescents as the alpha value comes out to be .04 which is less than 0.05 alpha.

Conclusion

From the above calculations, tables disclosed that there was significant positive association of general health with the somatic health and between somatic health and SSQ-S (negative insignificant association). With somatic health and social support the calculated values found to be weak and insignificant relationship i.e. 0.013 and -0.052. The above tables also revealed the main and interaction effect of independent variables i.e alexithymia and institutionalization on dependent variables.

Alexithymia have significant effect on general health including its various domains i.e. GHQ-B, GHQ-C, GHQ-D.

Alexithymia has also significant effect on somatic health. Significant effect of other independent variable i.e. institutionalization on dependent variables i.e. SSQ-N, SSQ-S, GHQ-B, GHQ-D, GH total and somatic health was high. Table values also revealed the interaction effect of independent variables on mental health, somatic health and social support. There was significant interaction effect (alexithymia and institutionalization) on GHQ-C i.e. cognitive aspects of mental health.

Implications

Present investigation focused on institutionalized and non institutionalized adolescents who were alexithymics. This investigation will be helpful for the caregivers to understand the adolescents more deeply. Alexithymics adolescents not able to express their feelings to others, caregivers (who worked in institutions and provide all basic needs to institutionalized adolescents) can help better and support the adolescents. It all will be leading towards the healthy life style and mental health. There is a need for counseling for alexithymia adolescents.

There should be given

- Group Therapy
- Engaging in the creative arts
- Various relaxing techniques
- Reading emotional books or stories.

These therapies and other techniques will help the adolescents in cultivating the skills for understanding and identifying feelings.

Table V. Shows the analysis of variance of Satisfaction with Social Support.

Sources of Variances	Sum of squares	Df	Mean sum of squares	F Values	Level of significance
Type of stay	2.205	1	2.205	.001	.975
Alexithymia	13.005	1	13.005	.006	.940
Type of stay X Alexithymia	8950.045	1	8950.045	3.931	.04*
Within Treatment	446143.100	198	2276.240		
Total	3523507.000	200	2.205	.001	.975

Note: Type of stay: 2 levels: institutionalized and non institutionalized

Alexithymia: 2 levels: high alexithymia and low alexithymia

*significant at 0.05 level

References

- Altshuler, S. J., and Poertner, J. (2002). The child health and illness profile-adolescent edition: assessing well-being in group homes or institutions. *Child Welfare*, 81(3), 495-513.
- Bagby, R.M.; Parker, J.,D., and Taylor, G.J. (1994). The twenty-item Toronto Alexithymia Scale-I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research*; 38:23 – 32.
- Barsky, A. J., and Klerman, G. L. (1983). Vue d'ensemble: Hypochondrie, plaintes corporelles et de styles somatiques. *American Journal of Psychiatry*, 140, 273-283.
- Bhatia, B. D. (1982). Mental health in education. *Advanced educational psychology*.
- Cohen, S., Gottlieb, B. H., & Underwood, L. G. (2000). Social relationships and health. *Social support measurement and intervention: A guide for health and social scientists*, 1-25.
- Fukunishi, I., Kunimimaeda, Kubota, M., Tomino, Y., & Rahe, R. H. (1995). Severity of alexithymia is related to psychosocial factors in patients with peritoneal dialysis. *Psychological reports*, 77(3), 763-770.
- Gee, G. C., & Payne-Sturges, D. C. (2004). Environmental health disparities: a framework integrating psychosocial and environmental concepts. *Environmental Health Perspectives*, 1645-16
- Gutzmann, H. (2000). Diagnosis and therapy of depression in advanced age. *Therapeutische Umschau. Revue Therapeutique*, 57(2), 95-99. 53.
- Hodges, J., & Tizard, B. (1989). Social and family relationships of ex-institutional adolescents. *Journal of Child Psychology and Psychiatry*, 30(1), 77-97.
- Jahoda, M. (1958). Current concepts of positive mental health.
- Joukamaa, M., Miettunen, J., Kokkonen, P., Koskinen, M., Julkunen, J., Kauhanen, J., & Järvelin, M. R. (2001). Psychometric properties of the Finnish 20-item Toronto Alexithymia Scale. *Nordic Journal of Psychiatry*, 55(2), 123-127.)
- Lakey, B. & Cronin, A. (2008). Low social support and major depression: Research, theory and methodological issues. *Risk factors for depression*, 385-408.
- Lesser, I. M., Ford, C. V., & Friedmann, C. T. (1979). Alexithymia in somatizing patients. *General hospital psychiatry*, 1(3), 256-261.
- Lincoln, N. B., Francis, V. M., Lilley, S. A., Sharma, J. C., & Summerfield, M. (2003). Evaluation of a Stroke Family Support Organiser A Randomized Controlled Trial. *Stroke*, 34(1), 116-121.
- Lipowsky, R. (1988). *Critical behavior of interfaces: wetting, surface melting and related phenomena*. Zentralbibliothek d. Kernforschungsanlage.
- Reusch, J. (1948). The infantile personality: the core problem of psychosomatic medicine. *Psychosomatic Medicine*, 10, 134-144.
- Sarason, I.G., et al. (1983). Assessing social support: the Social Support Questionnaire. *Journal of Personality and Social Psychology*, 44, 127-139.
- Sifneos, P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Psychotherapy and psychosomatics*, 22(2-6), 255-262
- Steckel, W. (1943). The interpretation of dreams. New York: Liveright.
- Taylor, G. J., & Bagby, R. M. (2004). New trends in alexithymia research. *Psychotherapy and psychosomatics*, 73(2), 68-77.
- Taylor, G.J. (2000). Recent developments in alexithymia theory and research. *Canadian Journal of Psychiatry*; 45:134-42.
- Taylor, S. E., Repetti, R. L., & Seeman, T. (1997). Health psychology: what is an unhealthy environment and how does it get under the skin?. *Annual review of psychology*, 48(1), 411-447.