Mental Health Problems in Alexithymia: Role of Positive and Negative Emotional Experiences

Akanksha Dubey and Rakesh Pandey

Previous empirical evidences show that though, alexithymia is associated with a variety of somatic and mental health problems, the exact mechanism that makes alexithymic individual prone to mental or somatic illness has not yet been uncovered. Based on earlier observations that alexithymic individuals are characterized by anhedonia and a proneness to negative emotional experiences, the present study examines the mediational role of positive negative emotional experiences in alexithymia - health relationship. Hundred fifty adults were assessed on the measures of alexithymia, mental health, and positive/negative affectivity. The correlation analysis revealed alexithymia and its various dimensions correlated significantly positively with mental health problems and negative affect correlated significantly and negatively with positive affect which suggest that alexithymic individuals are prone to mental health problems and negative emotional experiences and lack hedonic capacity. Further, it was also noted that negative emotional experiences and reduced capacity for positive emotions were related with greater number of mental health problems. This pattern of relationship among the measures of alexithymia, mental health and positive-negative affect suggests the possibility that anhedonia and proneness to negative emotions may explain the link between alexithymia and mental illness. To test this possibility a structural relationship model linking alexithymia an mental health directly as well as indirectly through positive and negative affect was tested using AMOS 20. The findings revealed a significant direct effect of alexithymia on mental health as well as indirect effect through positive/negative emotions. The findings suggest that alexithymia is associated with mental health problems and these problems may be partly due to the alexithymics' anhedonic tendency and their propensity to experience negative emotions. The findings have been discussed in the light of the existing literature and a future direction for research has also been proposed.

Alexithymia is a cognitive-affective deficit characterized by: (i) difficulty in identifying and describing feelings, (ii) difficulty in distinguishing between feelings and bodily sensations, (iii) impaired symbolic activity as evidenced by paucity of fantasy and other imaginative activity, and (iv) externally oriented thinking i.e., a preference for focusing on external events rather than inner experiences (Nemiah, Freyberger, and Sifneos, 1976; Taylor, 1984). Alexithymia is associated with a reduced emotional functioning and difficulties in understanding and communicating emotion and feelings are at its core (Sifneos, 1973). Apart from the said affective deficits, it has also been linked with numerous other affective difficulties which includes anhedonia ( reduced capacity for positive emotional experiences, prevalence of and proneness towards negative emotions (Simonssson-Sarnecki, Lundh, et al., 2000), poor emotional regulation and stress management abilities (Lumine, Réme, Bagby, and Taylor, 2004). Alexithymic individuals have been found to report a variety of somatic and mental health problems. Such a wide range of emotional difficulties present in alexithymic individuals make them prone to a variety of mental and physical health problems (Lumley, Stettner, and Wehmer, 1996; Taylor and Bagby, 2004).

Numerous researches have demonstrated that alexithymia is linked with a variety of symptomatic complaints including depression and anxiety(berthoz, Consoli, Perez-Diaz and Jouvent, 1999; see Taylor, 1984, 1994 for a review), somatic complaints (Parker, Bagby, and Taylor, 1989; Taylor, Parker, Bagby, and Acklin, 1992, Vassend, 1987), hypertension (Todarello, Taylor, Parker and Fanalli, 1995), inflammatory bowel disease (Porcelli, Zaka, Leoci, Centonze, Taylor and Parker 1995), somatoform disorders (Cox, Kuch, Parker, Shulman and Evans 1994), panic disorder (Zeitlin and McNally, 1993) and eating disorders (De Groot, Rodin and Olmstead, 1995). A bulk of studies relates alexithymia to a number of physical health problems such as various heart related problems (Mattila et al., 2009; Temoshok et al., 2008), sensitivity to anxiety (Devine, Stewart and Watt, 1999), severity of depression (Honkalampi, Hintaikka,

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Laukkanen, Lehtonen and Viinamäki, 2001) as well as recovery from depression (Salminen, Saarijarvi, Åarela, Toikka, and Kauhanen, 1999).

Despite the convincing empirical evidences that alexithymia makes an individual at risk to develop a variety of physical and mental health problems, the mechanism through which it leads to health related problems is not yet clear. Some explanatory mechanisms linking alexithymia with mental/physical health problems have been extended. For instance, some researchers argue that the alexithymic individuals' poor capacity for identifying and understanding emotions coupled with a deficit to express emotions sum to emotion suppression and emotional suppression may lead to health diminishing effect (Pandey & Chaubey, 2010). For instance, Pennebaker (1993) advocates that spontaneous and habitual disclosure of emotion in general has positive effect and suppression of emotion has a negative effect on health. He stated that the nonverbal expression of emotions is related with an abrupt reduction in autonomic nervous system (ANS) activity. Another hypothesis linking alexithymia with physical and mental problems argues that these physical and mental illness are the consequence of alexithymic's inability to appreciate, distinguish and express affect, which in turns, increases the physiological arousal and those negative subjective state, that are not governed by psychological strategies. For example, Friedlander, Lumley, Farchione and Doyal (1997) support the speculation from their study that increased physiological arousal and subjective negative emotional experiences in alexithymic's may be a cause that leads to poor health.

The aforesaid hypotheses though provide some explanatory link between alexithymia and health related problems, other possibilities also exist. For instance, the proneness of alexithymic individuals to negative emotional experiences and a reduced capacity for positive negative emotional experiences may be a potential factor contributing to the health related problems among alexithymics. This trait-like disposition to positive/negative affects has been a focus for researches in the area of health psychology for a long period of time. During the last three decades numerous studies investigated the trait like characteristics of self-reported affects and arrived at two conclusions: first, there are temporally stable and transsituationally consistent individual differences in affective experiences. Second, these individual differences can be described by a two-dimensional structure, which is composed of two broad factors that were termed positive affect and negative affect (Russell and Barrett, 1999; Watson and Clark, 1992). Positive affects is the pleasurable and subjective experiences of happiness whereas negative affect is the subjective distress and unpleasurable engagement. Individuals having high positive affect tend to experience a range of positive emotions for example, enthusiasm, alertness and joy etc, whereas low PA is considered by sadness and lethargy. It is characterized by the tendency to experience a wide range of distressing negative emotions such as anxiety, anger, contempt, disgust, guilt, fear, nervousness and depression.

Positive affective component plays a vital role in the mental health. In fact it is an essential component of mental health area (e.g., Jahoda, 1958; Taylor and Brown, 1988). Happy individuals are prone towards good mental health than their less happy counterparts. Deiner and Seligman (2002) found that people belonging to the happiest groups were seen with lesser symptoms of psychopathology, such as depression, hypochondriasis, or schizophrenia (see also Chang and Farrehi, 2001; Lu and Shih, 1997). Clark, Watson, and Mineka, (1994) argued that the absence of hedonic and positive affect 'is a distinguishing characteristics of depressive people. Individuals experiencing greater positive affect are less likely to undergo from distressing situation (Lyubomirsky, king and Deiner, 2005), and social phobia or anxiety (Kashdan and Roberts, 2004). Contrary to it, individuals with elevated negative affect are prone to experience higher levels of negative emotions, they react extremely negative to stressful situations and show more physiological and
From the preceding review it is evident that alexithymia is associated with a variety of mental/physical health problems as well as anhedonia and a tendency to experience negative emotions. Further, such health problems are also linked with positive/negative affect. Thus, it is likely that alexithymia - health relationship may be mediated by the positive/negative affect. Recently, some empirical evidences provide some support to such speculation. For example, in a study Phoebe and associates (Bailey and Henry, 2007) assessed alexithymia, somatization and negative affect in a general adult sample and observed that specific facets of alexithymia (enhanced fantasy life and difficulty identifying emotions) were significantly associated with somatization, and these pathways were perfectly mediated by negative affectivity. Such mediational role of negative affect in alexithymia - health relationship has been reported in other clinical samples such as in individuals suffering from pain (Hosoi et al., 2010) and patients with medically unexplained symptoms (Gucht, 2002). The mediating role of negative and positive affect in the relationship of alexithymia with medically unexplained symptoms (MUS) has been reported by others also (De Gucht, Fischler, and Heiser, 2004). For example, De Gucht and associates (2004) observed that after controlling the dimensions of negative and positive affect, neuroticism and alexithymia no longer exerted a significant direct effect on MUS. Instead, their effect became indirect; mediated through negative affect (neuroticism), and positive affect.

In the light of the aforesaid preliminary empirical evidences, the present study makes an attempt to re-examine the relationship among the constructs of alexithymia, positive/negative affect, and mental health and to test how and to what extent the alexithymia - mental health relationship is mediated by positive negative emotional experiences. The mediation hypothesis was tested following the structural equation modeling approach using AMOS 20.

Materials and Methods:
Sample:
The present study was carried on relatively heterogeneous sample of 150 middle class male and female adults in the age range of 21 to 40 years. Participants beyond this age range were not included in the study because the dynamics of stress and health in the teen age and older age is quite different from the early and middle adulthood. Those subjects were also excluded from the present study who reported any history of chronic medical illness, psychiatric illness, and/ or neurological damage or disease. The participants belonged to varied educational level ranging from under matriculation to PhD level. Attempt was made to sample the participants from different occupational background such as marketing, teaching, defence, law, private firms, house-wife, students etc.

Tools:
The following self-report measures were used in the present research to assess alexithymia, psychosocial stress and various dimensions of health.

1. Hindi version of twenty-item Toronto Alexithymia Scale (TAS-20-H: Pandey, Mandal, Taylor, and Parker, 1996; Pandey, 1993) was used to assess the prevalence of alexithymic characteristic among the participants. The TAS-20-H has 20 items with 5-point rating scale. This scale is comprised of three dimensions of alexithymia namely Difficulty identifying feelings, Difficulty describing feelings and Externally-oriented thinking. The TAS-20 - H has been found to be extremely comparable with the original TAS-20, and has demonstrated satisfactory internal consistency, test-retest reliability and validity (Pandey, 1993, 1995; Pandey & Mandal, 1993). Higher score indicates higher level of alexithymia.
2. The Hindi version of Positive and Negative Affect Schedule (PANAS - H; Pandey and Srivastava, 2008) was used to assess the trait of positive-negative affectivity. This scale consists of 20 mood adjectives (10 positive and 10 negative) and the respondents are asked to indicate how often they experience the mood states reflected in various mood adjectives on a 5-point scale ranging from 1 (a little bit or never) to 5 (nearly always). Higher score indicates higher level of the assessed affect.

3. General Health Questionnaire (GHQ, Goldberg, 1978). The 28-item version of GHQ was used to gauge four dimensions of mental health viz., anxiety, somatic complaints, social dysfunction and depression. This questionnaire consists of 28 items with four response alternatives ranging from always (0) to never (3). Higher scores on this questionnaire indicate poor mental health.

Procedure:
The aforesaid tests/scales were administered to participants either individually or in small groups consisting of 3 to 4 persons. Before administering the said questionnaires, the instructions were to complete each questionnaire was clearly explained to all the participants their queries (if any) were also attended properly. Before returning the booklet each participant was requested to ensure that he/she has responded to each and every item of the test booklet. If any item was found to be unresponded, then the participants were requested to complete it again. The correlation among the constructs of alexithymia, positive-negative affect and mental health was computed in addition to examining the mediating role of positive/negative affect in alexithymia and health relationship. The mediation analysis was done using AMOS 20.

Results:
Before, examining the mediating role of positive negative affect in the relationship of alexithymia and mental health, it was essential to examine the correlation of alexithymia and its various dimensions with health. The obtained correlations have been presented in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Somatic complaints</th>
<th>Anxiety and Insomnia</th>
<th>Social Dysfunction</th>
<th>Severe Depression</th>
<th>total GHQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in identifying feelings</td>
<td>.350**</td>
<td>.474**</td>
<td>.151</td>
<td>.309**</td>
<td>.423**</td>
</tr>
<tr>
<td>Difficulty in describing feelings</td>
<td>.264**</td>
<td>.308**</td>
<td>.155</td>
<td>.254**</td>
<td>.319**</td>
</tr>
<tr>
<td>Externally oriented thinking</td>
<td>.112</td>
<td>.098</td>
<td>.010</td>
<td>.140</td>
<td>.123</td>
</tr>
<tr>
<td>Total Alexithymia</td>
<td>.326**</td>
<td>.406**</td>
<td>.150</td>
<td>.324**</td>
<td>.398**</td>
</tr>
</tbody>
</table>

** p < .01

It is apparent from Table-1 that difficulty in identifying feelings, difficulty in describing feelings and overall alexithymia score correlated positively and significantly with all the dimensions as well as total score on GHQ except social dysfunction. The externally oriented thinking (one of the dimension of alexithymia), however, failed to correlate significantly with any subscale or the total score of the GHQ. The observed pattern of correlation between alexithymia and mental health suggest that higher level alexithymia is associated with more symptoms of mental health problems. However, the deterioration in the mental health of alexithymic individuals is largely because of their affective deficits (difficulty in identifying and describing feelings) and not because of the deficit in the cognitive component (externally oriented thinking) of alexithymia as it failed to correlate significantly with various subscales of the GHQ. Another important observation is the
non-significant correlation of the social dysfunction either with alexithymia (total score) or any of its dimensions.

To explore the relationship of alexithymia with positive and negative affect another correlational analysis was done. It is evident from Table 2 that alexithymia and its dimensions correlated significantly negatively with positive affect and positively with negative affect. The obtained pattern of association suggests that greater alexithymic tendency is associated with greater negative emotional experiences and decreased positive emotions.

**Table 2**

Correlation of Positive and Negative Affect with Alexithymia and its Dimensions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in identifying feelings</td>
<td>-.311**</td>
<td>.341**</td>
</tr>
<tr>
<td>Difficulty in describing feelings</td>
<td>-.234**</td>
<td>.218**</td>
</tr>
<tr>
<td>Externally oriented thinking</td>
<td>-.255**</td>
<td>.219**</td>
</tr>
<tr>
<td>Total score of Alexithymia</td>
<td>-.346**</td>
<td>.340**</td>
</tr>
</tbody>
</table>

** p < .01

The relationship of positive/negative affect with mental health was also examined and the findings (Table 3) revealed that all domains of mental health correlated significantly and negatively with positive affect. Contrary to it, the negative affect correlated positively with various domains of mental health except social dysfunction. This pattern of correlation suggests that prevalence of negative emotional experiences and reduced positive emotions are associated with symptoms of mental health problems.

**Table 3**

Correlation of Positive and Negative Affect with Mental Health and its Various Domains

<table>
<thead>
<tr>
<th>Variables</th>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatic complaints</td>
<td>-.258**</td>
<td>.390**</td>
</tr>
<tr>
<td>Anxiety and insomnia</td>
<td>-.205**</td>
<td>.458**</td>
</tr>
<tr>
<td>Social dysfunction</td>
<td>-.363**</td>
<td>.093</td>
</tr>
<tr>
<td>Severe Depression</td>
<td>-.307**</td>
<td>.406**</td>
</tr>
<tr>
<td>Total score of GHQ</td>
<td>-.354**</td>
<td>.448**</td>
</tr>
</tbody>
</table>

** p < .01

Overall the findings suggests that predominance of positive emotional experiences in one's life decreases the probability of mental health related problems whereas predominance of negative emotional experiences may result in poor mental health. Further, the findings also revealed that higher the level of alexithymia greater the chance of having mental health problems as well as greater negative emotional experiences and fewer positive emotional experiences. This pattern of correlation among the measures of alexithymia, mental health and positive-negative affect also suggests the possibility that anhedonia and proneness to negative emotions associated with alexithymia may be a factor responsible for the poor mental health of alexithymic individuals. In other words, the negative impact of alexithymia on mental health may be indirect (mediated) through positive and negative affect.

To test the aforesaid mediation hypothesis, a mediation path model was constructed taking positive and negative affect as mediator of the relationship of alexithymia and health. The model assumes that alexithymia may lead to high negative affect and/or reduced positive feelings which in turn may lead to poor mental health (indirect or mediated effect of alexithymia on health) as well as the alexithymia may have a
direct effect on mental health also. These direct and indirect (mediated) effects of alexithymia on mental health was tested using the structural modeling approach with the help of AMOS 20 and the obtained standardized path (regression) coefficients have been shown in Figure 1.

Figure 1: The causal model linking Alexithymia and Mental Health through Positive and Negative Affect

The coefficients shown over the respective paths in Figure 1 represent the standardized direct effects and the indirect effects of alexithymia on health through positive and negative affect is shown in the box. It is evident from the figure that alexithymia has a significant indirect effect on mental health through both positive affect (0.071) and negative affect (0.115) as well as a significant direct effect on mental health (0.23). The total standardized effect of alexithymia on mental health was found to be .441 of which it exerts a direct effect of .23 and indirect effect of .186 (through positive and negative affect). The regression weights associated with direct and indirect effects suggest that with one unit increase in the standard score of alexithymia the standard score of mental health increases by .23 units directly and .186 units indirectly (.115 and .071 through negative and positive affect respectively).

The aforesaid model representing the direct and indirect effect of alexithymia on mental health was found to be a good fit as evident from a non-significant Chi square associated with this model (X²= 2.304, P>.129) and the acceptable values other fit indices (X²/df=2.304, GFI=.992, AGFI=.923, TLI=.911, CFI=.985) as per the contemporary criteria of evaluating goodness of fit of a structural relationship model. The standardized residuals was found to be .037, which was well below the prescribed upper limit of .08. However, the RMSEA was slightly higher (.094) than the prescribed upper limit of .08. Taken together, the various fit indices suggest that the hypothesized model (Figure 1) represents a good fit.

Overall, this causal model suggests that alexithymia directly impairs the mental health of an individual as well as it impairs the mental health indirectly by increasing the negative emotional experiences and reducing the positive ones. However, the significant direct and indirect effects of alexithymia on mental health suggest that the alexithymia-mental health relationship is not fully mediated by positive and negative affect.
Discussion:

The findings support the earlier observations that alexithymia is associated with poor mental health inasmuch as a significant direct effect of alexithymia on mental health was observed over and above the indirect effect of positive/negative affect. Since alexithymia is characterized by a difficulty in understanding and communicating emotions and feelings, such deficits are likely to impair the mental health of an individual directly. For instance, researchers noted that the symptom of frequent anxiety and fear was observed in the individuals with greater difficulties in identifying and describing emotional states (e.g., Devine, Stewart, and Watt, 1999). The prevalence of alexithymia has also been reported to be high in a variety of mental disorders (e.g., Parker, Taylor, Bagby, and Acklin, 1993; see Taylor, 1994).

The present study contributes to and expands upon the existing literature on alexithymia-mental health relationship by demonstrating that the poor mental health of alexithymic individuals is partially the result of the alexithymic tendency (the direct effect) and partially because of their anhedonic tendency and preponderance of negative emotional experiences (the indirect effect of alexithymia). The findings provide support to the hypothesis that the alexithymia mental health relationship is mediated by positive and negative affect. Overall, this finding imply that the reduced positive and enhanced negative emotional experiences in alexithymic individuals play a significant role in the development of various mental health related problems. The alexithymic’s greater propensity towards negative emotions (e.g., Connelly & Denney, 2007) and reduced capacity to experience positive emotions has been well documented in the literature (see Taylor, 1984, 1994 for review). Further, it also well documented that elevated level of negative emotions and/or reduced positive emotions are linked with a variety of health related problems including mental health (Deiner and Seligman, 2002; Chang and Farrehi, 2001; Lu and Shih, 1997; Watson and Clark, 1984). Thus, these empirical evidences provide indirect support to the present observation that mental health problems in alexithymia may be an indirect effect of the alexitymics’ anhedonia and tendency to experience negative emotions. The observed significant mediational role of positive/negative affect in alexithymia - mental health relationship is also corroborated by some direct empirical evidences (e.g., Bailey and Henry, 2007; Hosoi et al., 2001).

However, unlike the earlier studies, the findings of the present study suggest that alexithymia - mental health relationship cannot be explained completely through the indirect effect of positive/ negative emotional experiences inasmuch as a significant direct effect of alexithymia on mental health was also noted. This observation suggests the possibility that some cognitive-affective deficits other than anhedonia and enhanced negative affect may also be responsible for mental health problems of alexithymic individuals. For instance, researchers have noted that alexithymia is also associated with a deficit in cognitive processing and regulation of emotions (e.g., Kessler, Kammerer, Hoffmann, and Traue, 2009; Taylor, 1994). Thus, the emotion regulation difficulties found in alexithymia may be an additional factor responsible its detrimental effect on mental health inasmuch as emotion regulation difficulties have been found to impair health (Gross and Munoz, 1995; Liverant et al., 2008; Lundh and Broman, 2006; Stein et al., 2008). In fact, recently a study by Pandey and associates (Pandey, Saxena, and Dubey, 2011) demonstrated that alexithymia is characterized by emotion regulation difficulties and such difficulties may be a factor responsible for the poor mental health of alexithymic individuals.

Conclusions:

Overall, the findings of the present study suggest that alexithymia is associated with impaired mental health and the poor mental health of alexithymic individuals is partly the result of their an hedonic tendency and propensity to experience negative emotions. However,
alexithymia has also a direct effect on mental health beyond its indirect effect through positive/negative affect. The observed significant direct effect, however, may be because of some other cognitive - affective deficits (present in alexithymia) potentially linked with mental health problems. The existing literature suggests the possibility that emotion regulation difficulties may emerge as a potential mediator variable in the relationship of alexithymia and mental health through positive/negative affect. Future research, thus, may focus on exploring the mediating role of other cognitive-affective deficits (associated with alexithymia) in relation to positive/negative affect in the alexithymia - mental health relationship.

References:
Behavioral Assessment of Mentally Challenged Children

L. N. Bunker, Subhash Meena and Laxmi Prajapat

The present study assessed 10 mentally challenged children on Madras Development Programming System (MDPS) Behavioural Scale before and after a training programme. The comparison of the behavioural assessment data on six domains of using ‘t’ revealed a significant difference between pre and post activities. The findings indicated that training brought a significant improvement in gross motor activities, fine motor activities, meal time activities, dressing behaviour, toileting activities, and receptive language among the mentally challenged children as indicated by higher post test score as compared to the pre-test score. The findings have been discussed in the light of available empirical evidences.

Mental retardation (MR) is a generalized disorder appearing before adulthood, characterized by significantly impaired cognitive functioning and deficits in two and more adaptive behaviours. Generally MR has an IQ below 70. Once focused almost entirely on cognition, the definition now includes both a component relating to mental functioning and one relating to individuals' functional skills in their environment. As a result, a person with below-average intelligence (IQ 70-84) may not be considered mentally retarded, unless the intellectual deficits are associated with other medical and behavioural signs and symptoms. Non-syndromic mental retardation refers to intellectual deficits that appear without other abnormalities.

In the 17th century, the intellectual disabilities were considered as a disease, and believed that it was caused by structural problems in the brain. It could be due to genetically created problems or acquired later in life (Porter and Wright, 2003). According to DSM-IV, three criteria must be met for a diagnosis of mental retardation: an IQ below 70, significant limitations in two or more areas of adaptive behaviour (as measured by an adaptive behaviour rating scale, i.e. communication, self-help skills, interpersonal skills, and more), and evidence that the limitations became apparent before the age of 18 (Sebastian, 2007). Jayanti (1989) has provided educational classification of the levels of Mental Retardation.

Children with mental retardation may learn to sit up, to crawl, or to walk slightly later than other children. Both adults and children with mental retardation may also exhibit some of the following characteristics: delays in oral language development, deficits in memory skills, difficulty learning social rules, difficulty with problem solving skills, delays in the development of adaptive behavior such as self-help or self-care skills, lack of social inhibitors. They generally take longer to learn language, develop social skills, and take care of their personal needs, such as dressing or eating. Nevertheless, virtually every child is able to learn, develop and become a participating member of the community. Individuals with developmental disabilities often experience challenges in acquiring toileting skills, which highlights a need for effective toilet training strategies that can be readily disseminated to caregivers (Rinald and Mirenda, 2012).

Treatment of Mental Deficiency:

As such there is no particular treatment to cure the mental deficiency, yet such children needs proper care and attention to keep them physically well. They need continuous training and support to be well kept, clean, well dressed and timely check for proper hygiene. It has been observed that many such children do not grow properly yet, they can learn to adjust to their environment and may lead a normal life. Educating their parents and significant others in their surrounding helps in big way. They should be informed about the limitations of these children. As such they can add in improving the happiness of these children by providing healthy home environment, regular health check-up,

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