INTRODUCTION

The adolescent period is often accompanied by new stress, behavioral change, and relationship problems and this affects psychosocial development. Parental involvement in the lives of adolescent children facilitates young people to cope with stressors and to maintain physical and mental health. In high-income countries, it has been found that, high levels of parental involvement in their children’s lives and development of a strong bond between youth and their parents is associated with a decreased risk of depression and loneliness among youth. The prevalence of mental health problems among adolescents ranges from 14.5% to 25% among various studies done globally. Studies that have been done among Indian adolescents estimate the prevalence mental health problems among adolescents to lie between 8.7% and 31.2%. Children are the most important asset and wealth of a nation. Healthy children make a healthy nation. The foundation of a child’s social attitude and skills are laid in the home. These days due to rapid industrialization and urbanization, majority of young couples are employed and get less time to look after their children. This circumstance leads to the rise in emotional and behavioral problems. Some research suggests that there is a link between maternal employment and some measures, such as cognitive test scores, behavior, and school success and that maternal employment in the early years of a child’s life is linked to worse cognitive and behavioral outcomes particularly among more advantaged mothers. Evidence also suggests that some aspects of maternal work, such as night shift work, long commutes and irregular work hours are linked with higher behavior problems among children.

This study aims firstly to estimate the prevalence of mental health problems among school-going adolescents aged 13-16 years in India using the Strengths and Difficulties Questionnaire (SDQ) and secondly to compare the mental health status of children whose both parents are employed with those who have stay at home mothers.

METHODOLOGY

This Cross-sectional study on the assessment of mental health status of children of 13-16 years was conducted at two schools in the city of Chennai from the period of July 2013 to October 2013. The Institutional Ethics committee of Stanley Medical College approved...
this study. Students between 13-16 years of age and whose parents consented to allow their wards to participate were selected. A total of 500 students were enrolled in this study.

First the consent was obtained from the school authorities and the parents of children informing them of the purpose of this study after giving assurance to maintain confidentiality. A structured questionnaire was administered to assess their basic information and socioeconomic status. The mental health status of the students was assessed using the Strengths and Difficulties Questionnaire (SDQ) which is a brief behavioural screening questionnaire. It exists in several versions to meet the needs of researchers, clinicians and educationalists. We used the self-report version suitable for young people aged around 11-16, depending on their level of understanding and literacy. All versions of the SDQ ask about 25 attributes that are divided between 5 scales:

1) Emotional symptoms (5 items)
2) Conduct problems (5 items)
3) Hyperactivity/inattention (5 items)
4) Peer relationship problems (5 items)
5) Prosocial behaviour (5 items)

Conduct disorder is a psychiatric category marked by a pattern of repetitive behavior wherein the rights of others or social norms are violated. Symptoms include verbal and physical aggression, cruel behavior toward people and pets, destructive behavior, lying, truancy, vandalism, and stealing. The problem was assessed on the basis of the answers written for questions 5, 7, 12, 18, and 22 in the questionnaire used.

Emotional disturbance can be broken down to internal behaviors, external behaviors and low incidence behaviors. Internal behaviors are observed in students who are depressed, withdrawn and anxious. External behaviors are seen in students who are aggressive and act out. Low incidence behaviors are behaviors that occur only in particular environmental triggers, such as a specific person or phrase. The emotional disturbance was assessed on the basis of questions 3,8,13,16,24 of the questionnaire used.

Hyperactivity can be described as a physical state in which a person is abnormally and easily excitable or exuberant. Strong emotional reactions, impulsive behavior, and sometimes a short span of attention are also typical for a hyperactive person. The students are assessed for hyperactivity on the basis of questions 2,10,15,21 and 25.

Prosocial Behavior refers to the phenomenon of people helping each other with no thought of reward or compensation. The children are assessed for Prosocial behavioral problems on the basis of questions 1,4,9,17,20.

Peer problems Children’s friendships have inevitable ups
and downs. Yet the feelings of satisfaction and security that most children derive from interacting with peers outweigh periodic problems. The children are assessed for Peer problems on the basis of questions 6, 11, 14, 19, 23.

Total difficulty score is generated by summing the scores from all the scales except pro-social behaviour. The resultant score can range from 0-40. (Table 1)

The children are assessed for impact scores on the basis of
- Difficulties upset or disturb me
- Interfere with Homelife
- Interfere with Friendships
- Interfere with classroom life
- Interfere with leisure activities

Descriptive univariate analyses were performed with the help of Epi Info version 7, to study the frequency of the various factors. Chi square was used to find association.

RESULTS

In our study of 500 school students the mean age of the students was found to be 14.6 years. 270 (54%) students were male and 230 (46%) were female. There are 236 students (47.2%) whose mothers are not working and 264 students (52.8%) whose both parents are employed. Mental problems among Indian school going students are common, Conduct problems were the highest (22.6%), followed by Peer problem (12.8%), Pro-social behaviour (12.4%), Emotional problem (12.2%). 23.4% of the students felt that these problems interfered with Homelife, Friendships, classroom life, leisure activities and difficulties upset or disturbed them as seen in table 2.

Mental problems were significantly higher among those children whose both parents were employed, across all categories (Figure 1).

Among those with abnormal SDQ scores a sub analysis was done to see the effect of maternal employment on mental health status of children. It was found that there was significant difference across all categories. Among those with Emotional problems 77% belonged to the group who had two working parents as compared to 23% whose mothers stayed at home. Among those with Conduct problems 61%, Peer problems 67.2%, Hyperactivity 68.3% belonged to the group who had two working parents as seen in table 3.

DISCUSSION

Medical advances in recent years indicate that acute-disease in childhood and adolescence could be substantially reduced, thus shifting the focus towards chronic and mental health problems and these problems need to gain more priority in public health measures. The aim of this study was to provide a generalized assessment of mental health status of school-going adolescents aged 13-16 years in India using the SDQ and to compare the mental health status of children whose mothers were employed with those who have stay at home mothers. Our study showed that 14.4% of the

### Table 3 Comparison of prevalence of Mental health problems among students with working and non working mothers

<table>
<thead>
<tr>
<th>Category</th>
<th>Both parents</th>
<th>One working parent</th>
<th>Chi square</th>
<th>P-value</th>
</tr>
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<tr>
<td>Emotional problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES (61)</td>
<td>47</td>
<td>14</td>
<td>16.39</td>
<td></td>
</tr>
<tr>
<td>NO (439)</td>
<td>217</td>
<td>222</td>
<td>0.0005148</td>
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</tr>
<tr>
<td>Conduct problem</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES (113)</td>
<td>69</td>
<td>44</td>
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</tr>
<tr>
<td>NO (387)</td>
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<td>192</td>
<td>0.01355</td>
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</tr>
<tr>
<td>Peer problem</td>
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<td></td>
</tr>
<tr>
<td>YES (64)</td>
<td>43</td>
<td>21</td>
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<td></td>
</tr>
<tr>
<td>NO (436)</td>
<td>221</td>
<td>215</td>
<td>0.01019</td>
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</tr>
<tr>
<td>Hyperactivity</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>YES (60)</td>
<td>41</td>
<td>19</td>
<td>6.601</td>
<td></td>
</tr>
<tr>
<td>NO (440)</td>
<td>223</td>
<td>217</td>
<td>0.01019</td>
<td></td>
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<tr>
<td>Pro-social behaviour</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES (62)</td>
<td>48</td>
<td>14</td>
<td>17.21</td>
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<tr>
<td>NO (438)</td>
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<td>222</td>
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<td>Total difficulties score</td>
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<td></td>
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<tr>
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<tr>
<td>Total impact score</td>
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<td></td>
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<td>YES (117)</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td>NO (459)</td>
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</table>

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participants studied had an abnormal SDQ score, which would suggest that they were likely to suffer from some degree of mental health issues. A similar finding was observed in the BELLA study which examined mental health problems from the National Health Interview and Examination Survey among Children and Adolescents in Germany but this study was done among children aged 7-17 years. 14.5% of these children and adolescents had an overall mental health problem indicated by an abnormal SDQ score. The German study had a larger sample (n= 2863 families) and the prevalence rates fell to 4.9% among adolescents when additional impairment was taken as a criterion, detected by further standardized screening measures.

Our study population consists of urban school children and does not take into account the rural population whose perceptions may be different. Also being a school based population the response rate is affected by parental permission and on each individual. Studies suggested that the screening tools were most sensitive in the urban middle class areas. Therefore, there could have been an under- or over-representation of psychopathology in our study sample.

In our study Mental problems screened by using SDQ were significantly higher among those children whose both parents were employed, across all categories. Studies have shown that maternal employment not only influences child outcomes but also has effects on the family processes that mediate child outcomes, namely: the psychological well-being of the parents, their marital relationship, the father’s role, and parent-child interaction.

Adverse family climate is also a negative contributor to children’s mental health, also the prevalence of mental health problems increases markedly when several risk factors occur simultaneously. This study has not taken into consideration the other factors in the family that may have contributed to the participants’ response.

Studies suggest that parental involvement is an important factor for positive child mental health for both boys and girls. Healthcare providers should encourage parents to be actively involved in their adolescent children’s lives, since healthy mental well-being in adolescence plays a key role in positive physical and psychological development.

CONCLUSION

Mental health problems are common among the adolescent population in India. Early detection and effective intervention will aid in wholesome development of the future citizens of our country. The SDQ gives a practical assessment of the mental health profile of young Indian adolescents. It is a short, simple questionnaire, which could be utilized in a general practice setting to screen adolescents for mental distress particularly focusing on nuclear families with two working parents. This study can bring awareness about the mental health of children among their teachers and parents and can guide them to take necessary intervention.

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CONFLICT OF INTEREST

All the authors declare that there is no conflict of interest.

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