Child behavioral problems: comparative follow-up study two decades – sociocultural comments
LIN Hong, WANG Yufeng

Abstract. Chinese school-aged children in urban areas of Beijing, China were surveyed in 1985, 1993, and 2003 consecutively regarding their behavioral problems. The instrument of the Rutter Scale for children’s behavior problems was used, so that the obtained data can be compared over the time. The results revealed that total behavioral problems increased remarkably over the 18-year period of time for both genders. By further analysis, it was found that externalizing behavior problems (namely antisocial behavior) was higher for boys than girls in general. Yet, for boys, externalizing behavior problems were gradually decreasing in terms of time, while that for girls was gradually increasing. Therefore, the gap between them was becoming less over time. Regarding internalizing behavior problems (namely neurotic behavior), it was obviously increasing for both boys and girls over time. The possible socio-cultural and family impact on the vicissitude of mental health of children was elaborated.

Key words: school children, behavior problems, antisocial, neurotic, externalizing behavior, internalizing behavior, socio-cultural change, Beijing, China

INTRODUCTION Most of the studies around the world have indicated that, in general, in nearly all developed countries, the rates of behavior problems of children and adolescents are rising during the past half century after the Second World War (Fombonne, 1998). However, methodological limitations make it difficult to provide conclusive answers. Changes in diagnostic criteria, differences in assessment methods, and variations in research sample population make it extremely difficult to interpret differences between studies in terms of historical trends (Roberts et al., 1998). Very few studies have provided assessments using the same measures for sample population from the same area at each time point. In spite of many epidemiological studies that had been carried out in the West, there are no studies of this kind that have been conducted in China, particularly the investigation that has been done with chronological follow-up to examine time trends in school aged children’s mental health. The aim of this article is to present the results of studies that have been carried out on comparable measures in 1985, 1993 and 2003 respectively, to test the extent of historical trends of any vicissitude of mental health problems in school aged children in China associated with socio-cultural changes that have occurred during the past two decades.

Correspondence to: LIN Hong, M.D. Institute of Mental Health, Peking University Beijing, China
E-mail: linhongw@bjmu.edu.cn

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METHODS OF STUDY This study examined behavioral problems in Chinese school-aged children in urban areas of Beijing, China consecutively in 1985 (study 1), 1993 (study 2) and 2003 (study 3). The instrument of the Rutter Scale for children’s behavior problems was used, so that the obtained data can be compared over the time.

For each study, permission to conduct the survey was granted by the Bureau of Education of Beijing for work in select elementary schools from Beijing City. All children in each school were coherently sampled from the first to sixth grade, aged 6-14. Total number of students surveyed for study 1 (in 1985) was 2,432; study 2 (in 1993) 1,960; and study 3 (in 2003) 3,711.

Children’s behavior problems were assessed with the Rutter Teacher’s Scale (Rutter,1967) for study 1 and the Rutter Parental Scale for study 2 and 3 respectively (Rutter,1970). Because of satisfactory reliability and validity, the Rutter’s questionnaires have been widely used to assess children’s behavioral problem in epidemiological research and clinical practices in many countries. It was introduced to China in the early 1980s. Previous studies have confirmed their acceptable reliability and validity in Chinese children, and have been widely used for clinical assessment and epidemiological research in China.

The Rutter Teacher’s Scale is a 26-item questionnaire and the Rutter Parental Scale is a 31-item questionnaire (answers rated on a scale of 0-2). A cut-off score of 9+ for the Rutter Teacher’s Scale, and 13+ for the Rutter Parental Scale are usually used to identify a significant level of maladjustment.

Two subscales were derived from these scales to identify children whose problems were “internalizing” (neurotic) or “externalizing” (antisocial) behavior. The former includes: (1) stomach-ache or vomiting; (2) worry; (3) being afraid of new things or new situation; (4) crying or being tearful on arrival at school or refusal to go into the building; and (5) sleep problems. The latter includes: (1) destroying own or others’ property; (2) disobedience; (3) lies; (4) bully to other children and (5) stealing. Children with an “internalizing” behavior score exceeding their “externalizing” behavior score were designated as having an internalizing problem, while those with an “externalizing” behavior score exceeding their “internalizing” behavior score were designated as having an externalizing problem.

RESULTS OF SURVEY The results of the most recent study carried out in 2003 for a total of 3,711 school children were analyzed for the total behavior problems and later for the internalizing and externalizing behavior problems by subscales. The obtained figures were compared with that of the previous studies of 1 (in 1985) and 2 (in 1993), and they were illustrated by Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>1993</th>
<th>2003</th>
<th>S2 vs. S1</th>
<th>S3 vs. S2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>( \chi^2 )</td>
<td>( \chi^2 )</td>
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<tr>
<td><strong>Total behavior problem</strong></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Both genders</td>
<td>8.3</td>
<td>10.9</td>
<td>18.2</td>
<td>8.64**</td>
<td>51.29***</td>
</tr>
<tr>
<td>Boys</td>
<td>13.5</td>
<td>16.2</td>
<td>21.3</td>
<td>3.25</td>
<td>10.29**</td>
</tr>
<tr>
<td>Girls</td>
<td>2.8</td>
<td>5.9</td>
<td>14.9</td>
<td>12.48***</td>
<td>51.21***</td>
</tr>
<tr>
<td><strong>Internalizing behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both genders</td>
<td>0.6</td>
<td>1.9</td>
<td>8.2</td>
<td>14.99***</td>
<td>90.19***</td>
</tr>
<tr>
<td>Boys</td>
<td>0.5</td>
<td>2.0</td>
<td>8.6</td>
<td>11.50***</td>
<td>9.21***</td>
</tr>
<tr>
<td>Girls</td>
<td>0.8</td>
<td>2.0</td>
<td>7.9</td>
<td>5.89*</td>
<td>42.37***</td>
</tr>
<tr>
<td><strong>Externalizing behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both genders</td>
<td>7.4</td>
<td>5.5</td>
<td>5.9</td>
<td>6.33*</td>
<td>0.36</td>
</tr>
<tr>
<td>Boys</td>
<td>12.9</td>
<td>9.1</td>
<td>8.1</td>
<td>7.54**</td>
<td>0.87</td>
</tr>
<tr>
<td>Girls</td>
<td>1.5</td>
<td>2.1</td>
<td>3.5</td>
<td>1.16</td>
<td>4.74*</td>
</tr>
</tbody>
</table>

Note: *P<0.05; **P<0.01; ***P<0.001
Regarding the total behavior problem — One of the most important findings, as shown in Table 1, is that the frequency increased remarkably over this 18-year period of time for both genders. Nevertheless, there are some differences observed between boys and girls. Namely, for boys, the frequency remained stable between 1985 and 1993, and then increased by 2003; as for girls, the frequency increased steadily over the period of investigations.

Regarding the two subscales of behavior problem — When the behavior problems were examined by the subscales for internalizing and externalizing behavior problems respectively, as indicated in Table 1, it was revealed that, the frequency of internalizing problems was increased dramatically for both genders; this is true for both boys and girls. For externalizing behavior, the frequency decreased between 1985 and 1993, and then remained stable by 2003 for both genders; this is also true for boys. For girls, however, the frequency remained stable between 1985 and 1993, and then increased slightly by 2003.

Regarding gender differences – Considerable differences were noticed between boys and girls. The total behavior problems of boys were higher than that of girls. When the results were compared among the three studies, it was revealed that while the differences between boys and girls were continuously noticed, the differences were gradually minimized, showing that differences between boys and girls decrease over time.

As for externalizing behavior problems, it was found that, in all three studies, the externalizing behavior problems (namely antisocial behavior) was higher for boys than girls in general. Yet, externalizing behavior problems for boys were gradually decreasing over time, while gradually increasing over time for girls. Therefore, the gap between them was becoming less over the time.

The interesting finding is that, regarding the internalizing behavior problems, there was no significant difference between boys and girls in all three studies. However, the internalizing behavior problems (namely neurotic behavior) were obviously increasing for both boys and girls. In other words, both boys and girls were showing more neurotic behavior problems associated with the change of time.

DISCUSSION The studies carried out in the urban setting in China have clearly shown an increase in childhood behavior problems for the period between 1985, 1993 and 2003. When the results were compared with those derived from the investigation carried out in some Western societies, it was found that there were some differences, suggesting the likelihood of culture variations. Review of literatures revealed that, in Sudan, Rahim and Cederblad (1984) found increased rates of parent-rated childhood behavior problems between 1965 and 1980. In the United States, Achenbach et al. (2003) examined the prevalence of parent-rated childhood behavior problems over a 23-year period (1976, 1989, & 1999). They found that the problem scores increased between 1976 and 1989, and then dropped in the most recent cohort. In the Netherlands, by contrast, there appears to have been little change between 1983 and 1993 in the prevalence of common childhood mental health problems (Verhulst et al., 1997). This raises important questions concerning the contributing factors for this phenomenon.

According to the ecological model proposed by Bronfenbrenner (1979), the child is not only affected by his/her personal characteristics (the individual level) but also by his/her immediate social and physical environment (the microsystem level), and by the interrelationship among the various settings of his/her immediate environment (the mesosystem level). The child is further influenced by broader social settings, such as economic processes (the exosystem level), which, in turn, are influenced by cultural attitudes and ideologies (the macrosystem level). In other words,
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an ecological perspective considers how the individual develops in interaction with the immediate environment, as well as of the larger context.

Atzaba-Poria and colleagues (2004) indicated that total behavior problem was predicted by all three levels: individual, microsystem and exosystem. However, externalizing problems were mainly predicted by microsystem-level cumulative risk, whereas internalizing problems were predicted by both individual-level cumulative risk and exosystem-level cumulative risk. The evidence on secular change in the prevalence of psychosocial disorders provides strong support for the role of environmental influences on psychosocial development. It is most unlikely that changes in the gene pool alone could explain short-term time trends in rates of disorder (Rutter, 2001). An examination of broader societal trends affecting the lives of children seems likely to provide important clues as to possible reasons for trends in mental health.

From historical points of view, there were considerable social and cultural changes that took place in China from 1985 to 2003, the period investigated by the reported three follow-up studies. In the mid 1980s, China adopted the ‘open-door’ policy to the Western world. A market economy system was established followed by dramatic improvement in the economy. After an improvement in the standard of living, Chinese, for the first time, had the luxury to be concerned about mental health in their lives, and, in turn, became more conscious about mental health problems.

While absolute levels of material resources have improved in China for later-born cohorts, socio-economic inequalities within the same society also appeared. This contributes to stress within the family and, in turn, to the mental health problems of children. It has been indicated by scholars that many contextual factors, including socio-economic deprivation and inequality, have relatively important impact on child development over time (Schoon et al., 2002; Ferri et al., 2003).

In addition to general changes in socio-economic conditions, there occurred numerous significant changes in policy towards the educational system in China. In order to prevent a potential population explosion, the “one-child-per-one-couple” family plan policy was implanted since 1980s, and most families have a single child. This is particularly true in urban settings, such as Beijing, where the investigation took place. The unintended outcomes of single child policy was the decreased opportunity for children to experience extended family support and socialization. Furthermore, single children feel increasing pressure to succeed in life due to their parents expectations toward their only child. This is illustrated by a Chinese daily saying that asks a child to become a “dragon” (for boys) or “phoenix” (for girls) – the symbolically successful and glorious animals in the Chinese mind. Traditionally, the Chinese educational system has been test-oriented and students have been under pressure to succeed academically. Because of the emphasis on test-taking as a ‘gate-keeping’ device, gaining acceptance into one of the key universities is extremely competitive, especially since there are not enough universities in China for all young people seeking to obtain a college education for better professional career.

These socio-cultural environments from larger contexts will have significant impact on the mental health of children, particularly on internalizing behavior problems as indicated by Atzaba-Poria and colleagues (2004). It is certainly plausible that these changes have contributed to rising rates of total and internalizing behavior problems of school aged children as revealed in our studies.

At the same time, the studies found that the externalizing behavior problems for boys were gradually decreasing over the past two decades and gradually increasing for girls. Therefore, the gap between them was becoming less over time. We may interpret this to be a result of relatively stable microsystems, the child’s immediate social and physical environment, the parent-child relationship and child rearing pattern within the family. The official one child policy in China has
significantly changed the parent-child relationship and child-rearing pattern. Namely, parents tend to treat their children very carefully, without harsh or physical punishment because their only child is seen as more precious. Also, because they can have only one child, classical patriarchal traditions preferring male children are failing. In another words, the differences between boys and girls are becoming less emphasized nowadays in contrast to the past. In association with this, the society is becoming more tolerant and accepting towards girls’ outward behavior, and there is no need for girls to show those submissive and humble roles that were traditionally expected. This may explain why the gap in externalizing behavior problems between boys and girls is decreasing.

Our present results do provide some hints as to the nature of the mechanisms that are likely to be involved, showing that the vicissitude of behavior problems of school-aged children are associated closely with social and cultural changes in China. As we have seen, behavior problems increased over time for school children for boys and for girls, especially within obvious increases in emotional problems categorized as internalizing (neurotic) behavior problems. There is an urgent need to identify the underlying reasons for the increase in behavior problems over recent years, but there is also a need to explore effective intervention on both individual and societal levels.

REFERENCES


