

## **The effect of extended family living on the mental health of three generations within two Asian communities**

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**Background.** A study by Shah & Sonuga-Barke (1995) identified a relationship between family structure and the mental health of Pakistani Muslim mothers and their children. Children in extended families fared better, but their mothers fared worse than their nuclear family counterparts. The present study replicates and extends this study by exploring the impact of nuclear and extended family living on the mental health of three generations (children, mothers and grandmothers) in British Hindu as well as Muslim communities.

**Method.** 44 Muslim and 42 Hindu families participated in the study. The mental health of mothers and grandmothers and the behavioural problems of children (aged 5-11) were examined. Both mothers and grandmothers completed the Hospital Anxiety and Depression Scale. The children's behavioural adjustment was rated by their teachers using the Rutter Scale. Other relevant variables such as acculturation levels were also measured.

**Results.** Children and grandmothers were better adjusted in extended families than nuclear families. In contrast, mothers were better adjusted in nuclear families. This interaction between family type and generation was evident in both Muslim and Hindu families and did not appear to be mediated by other variables such as acculturation. Furthermore, mothers' and children's adjustment was significantly correlated with grandmothers', but not mothers', mental health in extended families (although not in nuclear families).

**Discussion.** These results provide further evidence for the link between family structure and mental health in Asian communities. They also challenge some of the assumptions about maternal mental health, its effects on child adjustment and its links to systems of social support. In extended families where social support was likely to be most available mothers were at greatest risk, while their children profited and this advantage seemed to be linked to the grandmaternal presence.

Patterns of psychological adjustment displayed by people from ethnic minority communities vary as a function of their culture, regional background and generational status. Comparisons of Afro-Caribbean and Asian people, with their

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indigenous peers, suggest higher hospital admission rates for adult immigrants of Afro-Caribbean origin. For those coming from the Asian sub-continent this effect is less clear cut (Hashmi, 1968; Thomas, Stone, Osborn, Thomas, & Fisher, 1993; but see Cochrane, 1977; Cochrane, Hashmi & Stopes-Roe, 1977; Cochrane & Stopes-Roe, 1977; Shaikh, 1985). Even in those studies in which Asian adults do display higher levels of disorder than their indigenous counterparts, this tends not to be reflected in the well-being of their children who are often better adjusted than their classmates (Cochrane, 1979; Hackett, Hackett, & Taylor, 1991; Rutter, Yule, Berger, Yule, Morton, & Bagley, 1974). Identifying the factors associated with these generational variations in mental health within the Asian community may cast light, in a more general way, on the relationship between immigration, culture and mental health.

Hackett and Hackett (1993) attributed the greater well-being of Asian children to structural features of the traditional Asian family. They suggest that the affectionate and protective nature of Asian families generally and extended families in particular promotes psychological well-being in children. This is in line with the large body of literature suggesting that extended family living benefits children. A review of this literature suggests that extended family living places children at an advantage where (1) three generational living is the traditional norm and inter-generational roles are clearly defined (Al Awad & Sonuga-Barke, 1992) or (2) mothers and children are living in deprived domestic circumstances (perhaps as single parent families). Here the extended family can act as a buffer against the stresses associated with urban living (Chase-Lansdale, Brooks-Gunn, & Zamsky, 1994).

Although extended families have a range of potentially protective characteristics, research suggests that their benefits are related more specifically to grandparental (particularly grandmaternal) involvement (Al Awad & Sonuga-Barke, 1992; Chase-Lansdale, Brooks-Gunn, & Zamsky, 1994). A review by Lavers and Sonuga-Barke (1997) outlined some of the ways in which grandmothers can have an influence on their grandchildren's development. Direct and constructive child care is clearly important (Cooley & Unger, 1991; Tinsley & Parke, 1987) but grandmothers may also exert influence over the grandchild's adjustment through indirect involvement in their role as advice giver and guide, as friend, counsellor and the provider of social and emotional support to the mother (Colletta, 1981; Cooley & Unger, 1991; Thomas, Rickel, Butler, & Montgomery, 1990).

In contrast to this generally positive picture, some authors have suggested that the traditional extended family is not always of benefit to its members and may under certain circumstances constitute a risk to mental health (Chase-Lansdale *et al.*, 1994; Sonuga-Barke, Mistry, & Qureshi, 1998; Unger & Cooley, 1992). In situations where grandmother involvement is in fact, or is perceived by the mother to be, overintrusive and overbearing high levels of involvement can and do have a detrimental effect on children's development (Chase-Lansdale *et al.*, 1994; Unger & Cooley, 1992). Such patterns of involvement lead to conflict and so affect the dynamics of family life, mothers' well-being and in turn the adjustment of children. In other words, grandmother involvement can have negative as well as positive effects on mental health.

Two studies of psychological problems in Pakistani Muslim families living in a UK city (Shah & Sonuga-Barke, 1995; Sonuga-Barke *et al.*, 1998) illustrated the complex nature of the effects of family structure on psychological well-being. In these studies the extended family advantage described above held for children in British Muslim families. Extended family children were rated by their teachers as significantly better adjusted than their nuclear family counterparts. However the opposite relationship between family structure and mental health was observed for the mothers. Mothers in extended families had significantly higher levels of depression and anxiety than those in the nuclear families. The present study attempted to replicate this finding and extend it in a number of ways. First, it looked at both Hindu and Muslim families within the UK Asian community. Studies of mental health in immigrant communities have often failed to differentiate between cultural and religious groupings. Indians, Pakistanis and Bangladeshis are often grouped together under the term 'Asian', assuming a homogeneity among immigrant groups which is only partly justified (Carpenter & Brockington, 1980). Where studies have compared Asians of different ethnic backgrounds (Cochrane, 1977) variations in psychological problems have been found. Cochrane and Stopes-Roe (1981), for instance, found that Indian immigrants had significantly fewer symptoms than either native-born or Pakistani-born residents. Moreover little research has appreciated the important religious differences that generally exist between Hindus of Indian origin and Muslims who typically originate from Pakistan. Most Asian immigrants come from societies where religion and its practice is a natural part of life and religious observance permeates daily routine. Because of this it might be predicted that religion is more likely to influence well-being than is the case in a more secular society. There are a number of key differences between Hinduism and Islam (Ghuman, 1992; Hinnels, 1995; Jackson & Nesbitt, 1993; Khan, 1979). Most likely to be of significance to this study are those beliefs and practices that relate to their approach to family life and the role of women. Hinduism sees marriage as a sacrament, while in Islam it is a contract and the roles of men and women are thought more clearly defined in Islam. While these sorts of factors may impinge on the well-being of grandmothers, mothers and their children, and produce differences in the absolute levels of mental health in these two religious and cultural groups, previous research suggests the pattern of adjustment associated with extended family living is a robust phenomenon within traditional cultural groups. On the basis of this it is expected that the advantage to the children and the risk to the mothers associated with extended family living will be found in both Muslim and Hindu families.

The present study also extended the analysis to the third generation. The mental health of grandmothers, mothers and children living in extended and nuclear families was compared. Although much of the research in this area has focused on the benefits of extended family living to grandchildren, it is clear that the traditional extended family holds potential benefits for grandparents as well. The fact that grandparents have largely been ignored in previous studies of family structure and mental health is perhaps not surprising from a western point of view where the expectation is that most elderly people will be cared for in extra-family institutions. However, in the Asian community the older generation often play the sort of significant role within the family that previous studies suggest has a positive impact

on mental health. Given this it was predicted that the effects on grandmothers' mental health of extended family living, where role fulfilment will be more likely, would be similar to those found with children. Grandmothers living in extended families would have less mental health problems than those living in nuclear families.

## Method

### *Participants*

The sampling frame comprised the total population of Asian Hindu and Muslim children, aged between 6 and 11 years enrolled at four East London primary schools, and their families. The Borough of Newham lies in the heart of East London. Newham has one of the most racially and culturally diverse populations of any area of London with around 220 000 inhabitants (Aurora, 1993). The percentage of people within Newham who are of immigrant origin is 42%, with 23% being from the Indian Subcontinent (Aurora, 1993). Families were contacted via letters sent to their children's schools and 122 families (30% of the total number contacted) took part in the study. Participants appeared representative of the group of children from which they were selected. Data on a random sample of 47 participants and 47 non-participants was obtained. Take-up of 'free school meals' and 'special needs education' was used as a proxy for the families' socio-economic level and their children's educational needs. Fifteen (32%) of the participant and 14 (30%) of the non-participant children were receiving free school meals. Equal proportions of children in these groups, 2 (4%) and 3 (6%) respectively, had special needs. More generally, those families who participated in the study were largely representative of the wider Indian and Pakistani communities in the Borough. Forty-eight per cent of fathers in the Indian families, and 39% in the Pakistani families, were employed in non-manual occupations compared with 50% and 45% respectively in the general Asian population of Newham. Twenty per cent of Indian families and 22% of Pakistani families in the study contained a person with a limiting long-term illness compared with 29% in the general Asian population (both Indian and Pakistani). Of the 122 families agreeing to take part, 36 families were not included in the final sample. Six were single parent families (including those in the sample who were divorced). In 25 cases the grandmothers were deceased or inaccessible. Five families withdrew during the study. The final sample comprised 42 Hindu families (23 nuclear and 19 extended) and 44 Muslim families (23 nuclear and 21 extended). This final group studied did not differ on any significant measure from the initial sample.

Table 1 summarizes the demographic and background data by family type and religion. None of the grandmothers and 5% of the mothers were born in the UK. Despite this English was described as the first language by a large number of mothers. Twenty-five mothers and two grandmothers were employed at the time of the study. Most of the mothers (73%) had received formal education to secondary school level. In contrast few grandparents had attended school. The mean length of residence of the mothers and grandmothers was 17.8 years ( $SD = 6.0$ ) and 16.5 years ( $SD = 10.5$ ) respectively. Ages of the adults who participated in the study ranged from 25 to 85 years. The mean age of the mothers was 35 years ( $SD = 5.4$ ) and of the grandmothers was 61 years ( $SD = 8.5$ ). The mean number of children per family in the sample was 2.8 ( $SD = 1.0$ ). Patterns of social class and education varied little as a function of family type and religion. Hindu mothers were older than their Muslim counterparts, and were more likely to be working outside of the home, to be born in India (as compared to Pakistan) and to speak Gujarati when English wasn't their first language. Likewise Hindu grandmothers were older and more likely to be born in India. The average age of the children was 7.8 years.

### *Instruments*

*Mother's and grandmother's mental health.* The Hospital Anxiety and Depression Scale (HADS) was used to measure mother's and grandmother's mental health. This 14-item self-report questionnaire gives separate scales for anxiety and depression. Developed by Zigmond and Snaith (1983) to screen patients attending hospitals and general medical clinics (i.e. in the presence of physical complaints) it has also

**Table 1.** Pattern of demographic and other background variables as a function of religion and family type

	Nuclear		Extended		Main effects	
	Hindu	Muslim	Hindu	Muslim	Religion	Family type
<b>Social class</b>						
% class 1	0	0	6	0	$\chi^2(4) = 3.40$	$\chi^2(4) = 2.29$
% class 2	17	8	0	20		
% class 3n	40	30	36	20		
% class 3m	26	40	36	46		
% class 4	17	22	22	14		
<b>Grandmother</b>						
Age (mean years)	62.9 (6.2)	58.1 (8.3)	63.1 (8.6)	60.1 (10.0)	$F = 4.77^*$	$F = 0.35$
Residence (mean years)	13.3 (10.0)	20.7 (11.6)	16.7 (8.4)	15.2 (10.4)	$F = 2.16$	$F = 0.26$
Working (%)	0	0	0	9	$\chi^2(1) = 1.95$	$\chi^2(1) = 2.35$
<b>Education</b>						
% none	70	74	68	71	$\chi^2(2) = 0.46$	$\chi^2(2) = 0.10$
% primary	22	13	21	19		
% secondary	8	13	11	10		
<b>Place of birth</b>						
% India	83	22	79	24	$\chi^2(2) = 51.5^{**}$	$\chi^2(2) = 0.08$
% Pakistan	0	74	0	76		
% East Africa	17	4	21	0		
<b>Mother</b>						
Age (mean)	36.6 (5.2)	32.9 (4.7)	35.9 (6.4)	34.8 (4.8)	$F = 4.89^*$	$F = 0.31$
Residence (mean length)	17.8 (5.4)	18.7 (8.0)	17.8 (5.2)	17.0 (4.8)	$F = 0.01$	$F = 0.43$
Children (mean number)	2.8 (0.8)	3.0 (1.2)	2.5 (0.8)	2.9 (0.9)	$F = 1.91$	$F = 0.17$
Working (%)	76	23	63	0	$\chi^2(1) = 21.6^{**}$	$\chi^2(1) = 0.03$
<b>Education</b>						
% none	4	0	16	14	$\chi^2(4) = 4.16$	$\chi^2(4) = 6.63$
% primary	17	4	5	0		
% secondary	74	78	63	76		
% sixth form	0	9	5	5		
% higher	5	9	11	5		
<b>Place of birth</b>						
% India	57	13	68	14	$\chi^2(3) = 56.2^{**}$	$\chi^2(3) = 2.80$
% Pakistan	0	65	0	81		
% East Africa	43	9	26	0		
% UK	0	13	6	5		
<b>First language</b>						
% Gujerati	52	9	21	5	$\chi^2(2) = 31.9^{**}$	$\chi^2(2) = 4.60$
% Urdu	0	52	0	47		
% English	48	39	79	48		

\*  $p < .05$ ; \*\*  $p < .001$ .Note. Figures in parentheses are standard deviations. All  $F$  tests have d.f. = 1, 82.

been used in the general community (e.g. Jacoby, Baker, Steen, Potts, & Chadwick, 1996). Professionally translated Gujerati and Urdu versions of the HADS developed by and available from NFER-Nelson were used in the study. These scales were constructed using careful back translations in order to ensure conceptual equivalence and cultural relevance.

*Children's adjustment.* The Rutter B2 Children's Behaviour Scale (Rutter, 1967) was used to assess children's adjustment. This teacher report questionnaire consisting of 26 statements concerning the child's behaviour is a widely used instrument. Teachers' ratings, instead of parents' ratings, were used so that views of adjustment would be independent of the mothers' perceptions which are likely to be influenced by religious and cultural factors.

*Levels of family acculturation.* The 30-item acculturation index (Cochrane & Stopes-Roe, 1978; with Gujarati and Urdu translations produced by the original authors) was used to give a comprehensive evaluation of the degree to which families were integrated into British society. The questionnaire has five scales:

1. The extent of ties with the home country.
2. Integration through employment.
3. Integration through social activity.
4. Integration through use of English.
5. Extent of observance of some socio-religious customs.

*Demographic information and family background information.* This included household membership, place of birth, ethnicity and religion, length of residence in the UK, adults' educational background, employment status, occupation and various other demographic measures.

### *Procedure*

Initial contact was made with parents by letter distributed through their children's school. Respondents were visited at a convenient time in their homes. The grandmothers of the nuclear family were contacted either by the researcher or via their family. After recording demographic data the mothers and grandmothers completed the HADS, in either Urdu or Gujarati. The mothers also completed the Acculturation Index. The HADS and Acculturation Indices were self-completed except where the respondent was unable to read. In these cases questions were read out loud and the answers recorded. The class teacher in charge of the children in the study completed the Rutter questionnaire. If the mother had more than one child attending one of the four schools the study focused on the younger child. Test-retest reliability was studied using a random sample of families over a 2-3 week interval.

## **Results**

### *Psychometric properties of the HADS*

The internal consistency of the English, Gujarati and Urdu versions of the HADS were computed. The high internal consistency of the Urdu version ( $.65 < \alpha < .84$ ) of the instrument was equivalent to that of the English version ( $.70 < \alpha < .86$ ) while the Gujarati version gave lower, though generally satisfactory, scores ( $.55 < \alpha < .73$ ). In addition the test-retest reliability was high for the two scales in both the Urdu and Gujarati languages ( $r(\text{anxiety}) > .85$ ;  $p < .01$ ;  $r(\text{depression}) > .86$ ;  $p < .01$ ). These values are similar to the data for the English version reported by the authors (Snaith & Zigmond, 1994;  $r(\text{depression}) = .92$ ;  $r(\text{anxiety}) = .89$ ).

### *Levels of mental health problems in the sample*

Forty-six per cent of mothers and 40% of grandmothers scored above the cut-off for 'possible' clinical levels for anxiety (Snaith & Zigmond, 1994). Twenty-nine per cent of mothers and 44% of grandmothers scored above these cut-offs for depression. Six

per cent of children scored above the cut-off on the Rutter teacher scale. This suggests that while the parents and grandparents in the study had higher levels of mental health problems than one would expect in relation to national norms, the case was reversed when it came to the children.

*Relationship between family structure, religion, acculturation and psychological adjustment*

Table 2 shows the acculturation scores as a function of family structure and religion. The data were submitted to a two-way ANOVA with religion and family structure as the between-subject independent variables and the acculturation index scale and its five subscale scores as dependent variables. The Hindu families were more acculturated than the Muslim families. This was particularly true with regard to the observance of customs, employment practice and social activities. While the overall acculturation score did not vary as a function of family structure there were differences between extended and nuclear families on two subscales. Extended families were more likely to observe traditional customs and be engaged in culturally based social activities than nuclear families. These last two findings are in keeping with the idea that extended families are more traditional in the focus of their activities than nuclear families. Pearson's correlations revealed no associations between acculturation and mental health ( $r_s < .20$ ). After significance levels had been adjusted to take account of multiple comparisons no associations between demographic and background factors and mental health were found ( $r_s < .22$ ). In extended families, there was no effect on mothers' mental health of whether the co-habiting grandmother was paternal or maternal.

**Table 2.** Acculturation index scores and subscores as a function of religion and family structure

	Nuclear		Extended		Main effects	
	Hindu	Muslim	Hindu	Muslim	Religion	Family type
Acculturation index	58.2 (7.0)	56.9 (4.5)	59.1 (5.1)	53.6 (4.6)	$F = 7.60^*$	$F = 1.18$
Customs	8.2 (0.7)	9.1 (0.7)	8.0 (0.7)	8.6 (0.8)	$F = 23.7^{**}$	$F = 4.53^*$
Employment	7.2 (3.3)	5.5 (1.7)	7.4 (3.2)	5.0 (0.0)	$F = 86.6^{**}$	$F = 0.21$
Ties	16.4 (2.0)	16.3 (1.7)	17.2 (1.7)	16.2 (2.0)	$F = 1.45$	$F = 0.65$
Language	14.8 (2.8)	15.2 (2.4)	15.7 (1.7)	14.4 (2.1)	$F = 0.70$	$F = 0.01$
Social activity	11.6 (1.8)	10.7 (1.6)	10.8 (2.0)	9.4 (2.4)	$F = 6.43^*$	$F = 6.43^*$

\* $p < .05$ ; \*\* $p < .005$ .

Note. Higher scores represent greater acculturation.

Table 3 shows the HADS scores as a function of religion, family structure and generational status. Anxiety and depression scale scores from the HADS were introduced as dependent variables in a three-way ANOVA with religion (Muslim vs.

Hindu), family structure (nuclear vs. extended) and generation (mother vs. grandmother). When anxiety was the dependent variable no main effects were significant ( $p > .16$ ). There was a strong interaction between family type and generation ( $F(1,164) = 9.173$ ;  $p < .005$ ). Grandmothers in nuclear families reported more anxiety than did mothers, while the situation was reversed in extended families. When depression was the dependent variable both religion ( $F(1,164) = 9.25$ ,  $p < .005$ ) and generation ( $F(1,164) = 11.23$ ;  $p < .001$ ) showed significant main effects. Muslim woman reported higher levels of depression than did Hindus, grandmothers more than mothers. Once again there was a significant interaction between family type and generation ( $F(1,164) = 13.10$ ,  $p < .001$ ). Levels of depression in nuclear families were roughly equal for mothers and grandmothers, in extended families mothers reported significantly more problems than did grandmothers. No other interactions were significant. When Rutter scale scores were introduced as the dependent variable there was a significant effect of family type on adjustment ( $F(1,82) = 6.12$ ,  $p < .05$ ). The effect of religion and the interaction between family type and religion did not reach significance.

**Table 3.** Mental health as a function of family structure and religion

	Nuclear		Extended	
	Hindu	Muslim	Hindu	Muslim
Grandmother				
Anxiety	7.6 (3.4)	10.2 (4.5)	8.1 (4.1)	7.2 (2.7)
Depression	8.7 (3.8)	10.1 (4.5)	6.9 (3.8)	8.0 (2.4)
Mother				
Anxiety	6.8 (3.4)	7.0 (4.0)	8.7 (4.6)	9.9 (4.2)
Depression	5.3 (3.1)	6.2 (3.6)	5.9 (3.5)	9.4 (3.1)
Child				
Rutter Questionnaire	2.9 (4.5)	1.3 (2.4)	2.6 (3.4)	0.9 (0.9)

*The association between the mental health of mothers, grandmothers and children*

The associations between the mental health of the three generations were explored for the sample as a whole and then for each family type separately. If it is true that grandmaternal cohabitation is specifically implicated in the impact of extended family life on mental health a different pattern of intercorrelation between the three generations in nuclear and extended families would be expected. Table 4 reports the correlations between HADS totals for mothers and grandmothers and Rutter scores for the children in both family types. When corrected for the number of tests performed, significant associations between grandmaternal mental health and mother's and children's adjustment were found only in extended families. Weak correlations that approached significance were found between mother's mental health and children's adjustment in the nuclear family. The lack of any association between

mother's mental health and children's adjustment in extended families was particularly striking.

**Table 4.** Correlations between the mental health of mother and grandmothers and behaviour problems in children

	Nuclear		Extended	
	Mother	Grandmother	Mother	Grandmother
Mother	—	.28	—	.50**
Child	.27	.10	.03	.32*

\*  $p < .05$ ; \*\*  $p < .005$ .

*Note.* The measures of adult mental health are based on combined HADS anxiety and depression scores. The child's adjustment  $r$  is the Rutter Questionnaire score.

### Discussion

This study found that the positive effect of extended family living on mental health was conditional on generational status (Lavers & Sonuga-Barke, 1997; Shah & Sonuga-Barke, 1995). Children and grandmothers in extended families had fewer problems than those in nuclear families. The reverse was true for mothers. This was the case in both Hindu and Muslim families. By demonstrating the association between grandmaternal mental health and mother's mental health and child adjustment in extended families the study reinforces the view that grandmaternal presence in extended families is a contextual feature of general significance for both mothers and their children. Grandmaternal, but not maternal, mental health was associated with child adjustment in the extended family setting. Grandmaternal mental health was associated with maternal mental health in the extended but not nuclear families.

These data are not in keeping with an account of grandmaternal influence on grandchildren that views these effects as being due to their role as the provider of advice and guidance, friendship, counsel as well as social and emotional support to mothers (Colletta 1981; Cooley & Unger, 1991; Thomas, Rickel, Butler, & Montgomery, 1990). On the contrary, these effects seemed to operate directly on the child, bypassing any effects on the mother's mental health. This suggests that the benefits in this situation are due to direct and constructive involvement on the part of the grandmother (Cooley & Unger, 1991; Tinsley & Parke, 1987). This may take the form of practical care, moral guidance or cognitive and emotional stimulation.

The effects of extended family living on the grandmother's mental health seems to be more complicated. One would certainly expect grandmothers as well as grandchildren to benefit directly from the sort of warm and confiding relationship that often exist between these two generations. At the same time such a situation provides the grandmother with the opportunity to fulfil her traditional role within the family and provide care and guidance for the younger generation. Fulfilling

traditional grandparenting roles has been shown to increase feelings of self worth and well-being in elderly people (see Kivnick & Sinclair, 1996 for a discussion).

It is of course possible that the benefits of the extended family to grandmothers have nothing to do with their relationship with the grandchild or their role as grandparents. Rather it may be linked to more general qualities of the extended family context. For instance, in the present study people living in extended families were less acculturated and more traditional than nuclear families in a number of ways. However, these features of family life were unrelated to mental health in the present study. Another aspect of extended family life is the availability of high levels of day-to-day practical help with activities such as cooking and cleaning, financial security and companionship. This would be expected to reduce the stress associated with the grind of daily living and therefore have a positive effect on grandmothers' sense of well-being.

These benefits of extended family living experienced by the grandmothers and their grandchildren are provided at a cost to the family as a whole. As within most families the burden of care is likely to fall to the mother. Given this it is not surprising that extended family mothers had more mental health problems than did their nuclear family counterparts. The extra burden associated with the demanding tripartite role of mother, wife and daughter-in-law, adopted by these women, is simply very tiring. Further it is likely to be associated with considerable psychological stress and an increased risk of the development of disorders of mood such as depression.

In addition to this there is evidence that the increased risk of mental health problems in extended families is linked to intergenerational tensions. Sonuga-Barke *et al.* (1998) found that disagreement over child rearing between mothers and grandmothers was very strongly related to maternal depression and anxiety. They suggested a number of ways to account for these findings. First, mothers may lose their sense of agency and develop feelings of helplessness in the presence of overbearing and intrusive grandmothers with whom they disagree over child care. Secondly, differences of opinion in the domain of child care may represent one indication of a more general ideological gulf between the generations (Rosenthal, 1984). This may lead to open conflict between the generations, or the mother experiencing confusion over personal and cultural identity or a sense of isolation from other members of the family. Much of this experience will depend on whether the mother (or grandmother) has actively chosen to maintain the more traditional life-style associated with the extended family. In these cases one would expect role satisfaction to be higher and for this to act in a way that moderates the relationship between family structure and mental health.

In more general terms it is interesting to note that the availability of support from another adult did not constitute a protective feature of the mother's environment. Furthermore, although high levels of maternal anxiety and depression are usually associated with child maladjustment, the children in extended families prospered while their mothers suffered. In this way the data highlight the conditional nature of risk and protective factors as they operate in different cultural contexts.

In interpreting the significance of the associations between mental health and family type found in the present study it is important to be aware of the limitations

of cross-sectional designs. It is possible, if not likely, that patterns of adjustment determine type of residence. If this were true well adjusted grandmothers and children and poorly adjusted mothers would come together to form extended families rather than extended families producing these effects on the mental health of family members. It will be important in future to explore these issues using longitudinal designs.

Two other findings from the present study are worthy of comment. First, mental health problems were more common in the population of Muslim women than their Hindu counterparts. This could be interpreted in terms of the different roles traditionally held by women in Hindu and Muslim communities (Anwar, 1985; Ghuman, 1992; Jackson & Nesbitt, 1993). In addition, the two groups in the present study differed in a number of ways that might explain the pattern of results. Muslim mothers and grandmothers were younger than their Hindu counterparts, less likely to be in paid employment and to come from less acculturated families. In particular, Hindu women were more likely to have employment contacts outside of the home, were less likely to be socially isolated and the families that they were part of were less likely to engage in traditional customs. In general it appeared that the Muslim women were living in more traditional families and had more traditional and restricted roles within those families than did the Hindu women. However, in the present study these indices of traditionality were not correlated with mental health.

Finally it is worth commenting on the general levels of disturbance found in this sample. As in previous studies, Asian children appeared better adjusted than the indigenous population. In contrast, mother and grandmothers reported worryingly high levels of depression and anxiety. These findings while in line with previously published data from community samples are at odds with hospital admissions data (Cochrane, 1977). There are a number of factors that account for these conflicting findings. First, there is evidence for cultural differences in the way somatic dimensions of distress are recognized and recorded (Fenton & Poonia, 1988). Asian patients 'tend to focus their attention more on physical than psychological aspects of their problem unless one directly makes this inquiry...' (e.g. Nayani, 1989). This is confirmed by studies on minority ethnic groups which report a predominance of somatic symptoms in the primary care setting (Khan, 1979). Secondly, some writers have suggested that GPs are poor at recognizing mood disorders in Asian patients. Thirdly, Asian women may perceive mental illness in a different way, the most important criterion being the ability to fulfil one's role and carry out one's obligations. They may not perceive internal distress as an illness; illness is perceived by the presence of other symptoms and its severity is judged by the degree of social dysfunction (Khan, 1979). Fourthly, these discrepancies may reflect underutilization of services by immigrants. Some research has identified ethnic minorities as being underrepresented in terms of usage of community support services, e.g. day facilities (Hatfield, Mohammed, Rahim, & Tanweer, 1996). A survey of mental health provision in Newham (Wills, Martineau, Denby, Okine, & Gwyntopher, 1990) showed that in several of the facilities in the health sector Asians were underrepresented relative to the size of the Asian population. On the other hand, within the voluntary sector the reverse was sometimes the case. For example, the Newham branch of the National Association of Mental Health (MIND), which offers

a specific service to Asian women, reported that a high proportion of its clients (39%) were Asians.

This study highlights three important issues in relation to the provision of mental health services to the Asian community. First, that women within the Asian community may be at particular risk for disorders of mood such as depression and anxiety. Further research addressing the discrepancy between survey data and health service records in this regard needs to be undertaken. Secondly, that within the Asian community there may be important differences in the risks of such disorder, with Muslim women being particularly at risk. The particular factors associated with these differences need to be addressed. Finally, that in both Hindu and Muslim families living in extended families seems to place mothers at risk, while being protective of grandparents and children. The challenge therefore is to address the threats to the welfare of mothers without jeopardizing the benefits to members of the other generations.

### References

- Al Awad, A., & Sonuga-Barke, E. (1992). Childhood problems in a Sudanese city: A comparison of extended and nuclear families. *Child Development, 63*, 907-914.
- Anwar, M. (1985). *Pakistanis in Britain: A sociological study*. London: New Century.
- Aurora, R. (1993). *Newham Borough trends: Newham overview*. London: Newham Council.
- Carpenter, L., & Brockington, F. (1980). A study of mental illness in Asians, West Indians and Africans living in Manchester. *British Journal of Psychiatry, 137*, 201-210.
- Chase-Lansdale, P. L., Brooks-Gunn, J., & Zamsky, E. S. (1994). Young African-American multigenerational families in poverty: Quality of mothering and grandmothering. *Child Development, 65*, 373-393.
- Cochrane, R. (1977). Mental illness in immigrants to England and Wales: An analysis of mental hospital admissions, 1971. *Social Psychiatry, 12*, 25-33.
- Cochrane, R. (1979). Psychological and behavioural disturbance in West Indians, Indians and Pakistanis in Britain: A comparison of rates among children and adults. *British Journal of Psychiatry, 134*, 201-210.
- Cochrane, R., Hashmi, F., & Stopes-Roe, M. (1977). Measuring psychological disturbance in Asian immigrants to Britain. *Social Science and Medicine, 11*, 157-164.
- Cochrane, R., & Stopes-Roe, M. (1977). Psychological and social adjustment of Asian immigrants to Britain: A community survey. *Social Psychology, 12*, 195-207.
- Cochrane, R., & Stopes-Roe, M. (1978). *Psychological adjustment of immigrants*. Department of Psychology, University of Birmingham. Unpublished report.
- Cochrane, R., & Stopes-Roe, M. (1981). Psychological symptom levels in Indian immigrants to England - a comparison with native English. *Psychological Medicine, 11*, 319-327.
- Colletta, N. D. (1981). Social support and the risk of maternal rejection by adolescent mothers. *Psychology, 109*, 191-197.
- Cooley, M. L., & Unger, D. G. (1991). The role of family support in determining developmental outcomes in children of teen mothers. *Child Psychiatry and Human Development, 21*, 217-234.
- Fenton, S., & Poonia, K. (1988). *GP consultations, concepts of illness: South Asians in Bristol*. Swindon: ESRA Research Report.
- Ghuman, P. (1992). *Coping with two cultures*. Clevedon: Multilingual Matters.
- Hackett, L. & Hackett, R. (1993). Parental ideas of normal and deviant child behaviour: A comparison of two ethnic groups. *British Journal of Psychiatry, 32*, 851-856.

- Hackett, L., Hackett, R., & Taylor, D. (1991). Psychological disturbance and its associations in the children of the Gujerati community. *Journal of Child Psychology and Psychiatry*, *32*, 851–856.
- Hashmi, F. (1968). Community psychiatric problems among Birmingham immigrants. *British Journal of Social Psychiatry*, *3*, 196–203.
- Hatfield, B., Mohamad, H., Rahim, Z., & Tanweer, H. (1996). Mental health and the communities: A local survey. *British Journal of Social Work*, *26*, 315–336.
- Hinnels, R. (1995). *A new handbook of living religions*. London: Blackwell.
- Jacoby, A., Baker, G., Steen, N., Potts, P., & Chadwick, D. (1996). The clinical course of epilepsy and its psychosocial correlates—findings from a UK community study. *Epilepsia*, *37*, 148–161.
- Jackson, R., & Nesbitt, F. (1993). *Hindu children in Britain*. London: Trentham Books.
- Khan, S. (1979). *Minority families in Britain*. London: Macmillan.
- Kivnick, H. Q., & Sinclair, H. M. (1996). Grandparenthood. In J. E. Birren (Ed.), *Encyclopedia of gerontology; Vol. 1. Age, aging and the aged* (pp. 611–624). New York: Academic Press.
- Lavers, C., & Sonuga-Barke, E. J. S. (1997). Annotation: The grandmother's role: her grandchildren's adjustment. *Journal of Child Psychology and Psychiatry*, *38*, 747–753.
- Nayani, S. (1989). The evaluation of psychiatric illness in Asian patients by the Hospital Anxiety Depression Scale. *British Journal of Psychiatry*, *155*, 545–547.
- Rosenthal, D. A. (1984). Intergenerational conflict and culture: A study of immigrant and non-immigrant adolescence and their parents. *Genetic Psychology Monographs*, *109*, 53–57.
- Rutter, M. (1967). A children's behaviour questionnaire for completion by teachers: Preliminary findings. *Journal of Child Psychology and Psychiatry*, *8*, 1–11.
- Rutter, M., Yule, W., Berger, M., Yule, B., Morton, J., & Bagley, C. (1974). Children of West Indian immigrants—rates of behavioural deviance and of psychiatric disorder. *Journal of Child Psychology and Psychiatry*, *15*, 241–262.
- Shah, Q., & Sonuga-Barke, E. (1995). Family structure and the mental health of Pakistani Muslim mothers and their children living in Britain. *British Journal of Clinical Psychology*, *34*, 70–81.
- Shaikh, S. (1985). Cross-cultural comparison: Psychiatric admission of Asian and indigenous patients in Leicestershire. *International Journal of Social Psychiatry*, *31*, 3–11.
- Snaith, R., & Zigmond, A. (1994). *The Hospital Anxiety and Depression Scale: Manual*. Windsor: NFER-Nelson.
- Sonuga-Barke, E., Mistry, M., & Qureshi, S. (1998). The mental health of Muslim mothers in extended families: The impact of intergenerational disagreement on anxiety and depression. *British Journal of Clinical Psychology*, *37*, 399–408.
- Thomas, E., Rickel, A. U., Butler, C., & Montgomery, E. (1990). Adolescent pregnancy and parenting. *Journal of Primary Prevention*, *10*, 195–206.
- Thomas, C., Stone, K., Osborn, M., Thomas, P., & Fisher, M. (1993). Psychiatric morbidity and compulsory admission among UK born Europeans, Afro-Caribbeans and Asians in central Manchester. *British Journal of Psychiatry*, *163*, 919.
- Tinsley, B., & Parke, R. (1987). Grandparents as interactive and social support agents for families with young infants. *Ageing and Human Development*, *25*, 259–277.
- Unger, D., & Cooley, M. (1992). Partner and grandmother contact in black and white teen parent families. *Journal of Adolescent Health*, *13*, 546–552.
- Wills, J., Martineau, F., Denby, A., Okine, F., & Gwyntopher, C. (1990). *A research survey of social services, health service and voluntary sector mental health provision in Newham*. London: Newham Health Authority.
- Zigmond, A., & Snaith, P. (1983). The Hospital Anxiety and Depression scale. *Acta Psychiatrica Scandinavica*, *67*, 361–370.

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