

Psychological distress among British South Asians: the contribution of stressful situations and subcultural differences in the West of Scotland Twenty-07 Study

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ABSTRACT

Background. This paper seeks to explain an excess of psychological distress previously found among groups of British South Asians (with ancestry from the Indian subcontinent) living in Glasgow, compared with the general population. The excess was found on a psychosomatic measure and a measure of self-assessed distress but not on a clinically validated measure (the General Health Questionnaire or GHQ). The paper investigates whether South Asians are subject to stressful situations to which the GHQ is less sensitive than the other two measures.

Methods. Random samples of 159 South Asians aged 30–40, mean age 35, and 319 from the general population, all aged 35, were interviewed in Glasgow, using the 12-item General Health Questionnaire (GHQ-12), a psychosomatic symptom scale (PSS) and a self-assessment of distress. Subcultural groupings were differentiated by South Asian origin, English fluency, religion, and gender. Stressful situations assessed were experience of assault, stress/dissatisfaction with work, overcrowding, low standard of living, absence of family and absence of confidants.

Results. The GHQ-12 was less sensitive to certain stressful situations than the other two measures. The PSS and/or self-assessed distress were more sensitive to low standard of living, self-rated stress in work around the house and possibly experience of assault. In a combined analysis, the relation between distress on the PSS or self-assessed measure and subcultural groupings became non-significant, while the relation between distress and key stressful situations remained significant.

Conclusions. The greater distress of women, Muslims and limited English speakers is largely explained by the stressful situations they experience. The GHQ-12 under-estimates distress related to situations experienced particularly by ethnic minorities and by women.

INTRODUCTION

The pattern of psychological distress among ethnic minorities in Britain shows an apparent exception: namely, those with origins in the Indian Subcontinent (South Asians). High rates of psychiatric admission among Irish and Afro-Caribbeans contrast with low rates among South Asians (Cochrane & Bal, 1989); and studies of the South Asian population in their own homes have likewise shown low levels of psychological

symptoms (Cochrane & Stopes-Roe, 1977, 1981). However the issue of the mental health status of South Asian populations is controversial (Ineichen, 1990). Studies of hospital admission rates are conflicting (Rack, 1990) and national studies have found high suicide rates among young women (Soni Raleigh, 1996). It has been suggested that conflicting evidence on mental health may well be due to the variable extent to which somatic dimensions of distress are recognized and recorded (Leff, 1988; Wilson & MacCarthy, 1994). Our own data have shown that women and certain groupings among British Punjabis (Muslims and limited English speakers)

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show an excess of distress on a measure of psychosomatic symptoms (Williams *et al.* 1993, 1997) and on a self-assessment of distress (Williams *et al.* 1997), though not on the General Health Questionnaire (GHQ). We have also presented evidence that the GHQ does not represent a more severe level of distress than the other two measures.

The groups with high levels of distress on the psychosomatic and self-assessed measures in our data are marked by subcultural variations of ethnicity, religion, language or gender; and some might suggest that these two measures reflect subcultural sensitivities that are more reactive to shallow levels of distress and that the clinically validated measure (the GHQ) remains the gold standard. But since the distress assessed by these two measures seems to be as severe as that assessed by the GHQ, we cannot accept this argument uncritically. Rather, we need to consider the alternative possibility, that the GHQ is insensitive to expressions of distress among women and many South Asians.

In this paper we investigate further these conflicting findings on psychological distress and seek to add to the debate on whether distress has been under-estimated among women and groups of South Asian origin living in Britain. Our concern is with possible external causes of distress which our psychosomatic and self-assessed distress measures may be reflecting. We have already published information on circumstances likely to represent chronic strains, showing that South Asian women were more likely to have been mugged or assaulted, to record stress in day-to-day running of the house, and to lack confidants and close members of their own family nearby (Williams *et al.* 1994). In addition, South Asians in general were poorer, more overcrowded and worked longer hours than the general population. We have used the term 'stressful situations' to describe these conditions.

We explore two hypotheses for the apparent excess of distress, one focusing on stressful situations, and the other on their relation to subcultural groupings. Specifically, we test the following two propositions: (1) that the GHQ, the psychosomatic measure and self-assessed distress are differentially responsive to stressful situations; (2) that associations of distress measures with subcultural groupings are

explained by the relation between distress measures and stressful situations.

METHOD

Sampling

The samples used here, 319 members of the general population of Glasgow aged 35 and 159 Glasgow South Asians aged 30–40 (mean 35), derived by a stratified random cluster design with statistical reweighting where necessary, have been described in detail previously, together with the methods of data collection, and the distress measures used (Ecob & Williams, 1991; Williams *et al.* 1997). At the 5% level, sample numbers were sufficient for a three in four chance of detecting an approximately doubled odds ratio of distress between South Asians and the general population at the distress prevalences reported here (Boag *et al.* 1971). Interactions between stressful situations and subcultural groupings or distress measures are noted when they are significant; however to detect significant interactions, especially where the predictor is a factor rather than a covariate, larger samples are ideally required. Pending such samples, interactions are also noted here when they are on the border of conventional levels of significance. Otherwise this follow-up analysis is directed mainly towards estimating the effect size of distressed responses to stressful situations, using different distress measures and considering the South Asian and general population samples separately. To reduce unnecessary information, effect sizes are not presented for non-significant relationships.

Measures

A general comparison of the South Asian and general population samples on exposure to stressful situations has already been published elsewhere (Williams *et al.* 1994), using Pearlin (1989) as a framework. Here we focus on eight items (listed in Table 1) which show higher levels of exposure among South Asians than the general population, either for both sexes together or for women in particular. Experience of crime is represented by whether respondents have ever been mugged or assaulted in their current area of residence. Stress/pressure and pleasure/satisfaction at work are self-reported on a four-point scale (a great amount/a fair amount/

some/very little). Questions were asked for current paid work or, with those looking after home or children full-time, for work around the house. Pleasure/satisfaction ratings for these two types of work are similarly related to distress, and are combined into a single index (henceforth simply 'satisfaction'). Stress/pressure ratings (henceforth simply 'stress') are differently related to distress for paid work and for work around the house and are kept separate. Standard of living is constructed from household income band, car ownership and ownership of eight household durables. Factor analysis (principal components analysis) indicates that these items are represented by a single factor that explains 60% of the variance in either ethnic group. Indicators of social support were represented by current availability of confidants and of close members of respondents' family nearby. Absence of such support may be stressful in itself, or it may indicate absence of a coping resource which becomes important only when a stressful situation of some other kind is present. The first possibility is confirmed when support is significant on its own, the second when it is significant only in interaction with another stressful situation.

As previously noted, the following three indicators of distress were used.

1 The 12-item General Health Questionnaire (GHQ-12) relating to 'the last few weeks'.

2 A scale of psychosomatic symptoms (henceforth PSS), based on that used by Dressler (1985). The symptoms are: (i) headache; (ii) difficulty sleeping; (iii) sweating a lot; (iv) 'nerves'; (v) muscular tension; (vi) always feeling tired; (vii) difficulty concentrating; (viii) palpitations or breathlessness; (ix) worrying over every little thing; (x) indigestion or stomach trouble; (xi) faints or dizziness; and (xii) trembling hands. A similar list of symptoms has since been found to discriminate patients with psychiatric disorders using the Bradford Somatic Inventory in Lahore (Mumford *et al.* 1991). For each symptom respondents reported both whether they tended to have the symptom and whether they had experienced it in the last month. There is a correlation of 0.89 between the two versions of the measure, indicating their close equivalence; the version reporting current tendency to these symptoms is used here. Reports of these symptoms show values of Cronbach's

alpha (a measure of unidimensionality) ranging from 0.71 to 0.78 within ethnic and gender groups.

3 Self-assessed distress, in response to the question 'During the past year, how often have you been bothered by feeling sad or depressed?' (never/seldom/sometimes/quite often/very often). 'Sad or depressed' was rendered by the terms '*udasi ya gamgini*', forms of which were available in all three South Asian languages used. These are among the common terms found to be used in a qualitative study of mental distress among South Asians (Fenton & Sadiq-Sangster, 1996).

In the South Asian sample, the questionnaires were pre-translated from English into Urdu, Hindi and Punjabi by an educational psychologist fluent in all four languages (the latter three being closely related). The quality of the translation was tested by the translator and another poly-lingual interviewer piloting the schedules, and by further discussion with a bilingual doctor and other bilingual interviewers who covered all the languages concerned. Further back-translation and discussion of concepts has been carried out on the distress measures for this paper.

Weighting

Statistical correction was made for various biases in the South Asian sample, including under-sampling of postcode sectors with few South Asians, and undersampling of those aged 30–40 in households that had more than one such member (Ecob & Williams, 1991). The greater sampling error implied has been calculated and allowed for in the significance levels reported. The weighting preserved the equally balanced strata of Muslims and non-Muslims, thus reflecting the national situation rather than that in Glasgow, where Muslims predominate.

Analysis

Odds ratios and confidence intervals are calculated from log-linear or (where continuous predictors are involved) logistic regression analyses in SPSS for Windows.

RESULTS

The first two rows of Table 1 recapitulate prevalence data for the distress measures already published elsewhere (Williams *et al.* 1997), as a

Table 1. South Asians and general population aged 30–40 in Glasgow: stressful conditions and odds ratios of psychological distress on the General Health Questionnaire (GHQ), Psychosomatic Symptom Scale (PSS) and self-assessment (S-A)

| | Combined samples | | | South Asians | | | General population | | |
|---|--------------------------|-------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|--------------------------|-------------------------|----------------------------------|
| | GHQ (3+ items) | PSS (4+ items) | S-A (often sad/ depressed) | GHQ (3+ items) | PSS (4+ items) | S-A (often sad/ depressed) | GHQ (3+ items) | PSS (4+ items) | S-A (often sad/ depressed) |
| Percentage of distressed responses | | | | | | | | | |
| Males (75 S. Asian, 141 gen. pop.) | | | | 22% | 24% | 25% | 21% | 22% | 11% |
| Females (84 S. Asian, 178 gen. pop.) | | | | 25% | 45% | 39% | 29% | 29% | 20% |
| Odds of ratios of distress (95% CI) | | | | | | | | | |
| Crime | | | | | | | | | |
| Ever mugged/assaulted in current area (5%) | NS | 4.51** (1.82, 11.21) | 3.04* (1.23, 7.48) | NS | 9.82** (1.92, 50.18) | NS | NS | NS | NS |
| Paid work (self-rated) | | | | | | | | | |
| A great amount of stress (13%) v. very little (43%) | 2.49* (1.20, 5.16) | NS | NS | NS | NS | NS | 3.10* (1.28, 7.58) | NS | NS |
| Work around house (self-rated) | | | | | | | | | |
| Some stress (16%) v. very little | NS | 4.99*** (2.79, 8.93) | 4.69*** (2.59, 8.51) | NS | 5.68*** (2.40, 13.44) | 3.06** (1.34, 6.95) | NS | 3.97** (1.46, 10.78) | 4.16** (1.46, 11.83) |
| Work (paid or around house) | | | | | | | | | |
| Very little satisfaction (16%) v. a great amount (25%) | 5.88*** (2.50, 13.85) | 3.32** (1.60, 6.89) | 2.92** (1.41, 6.07) | 6.00* (1.27, 28.30) | 4.94* (1.25, 19.47) | 3.96* (1.05, 14.85) | 5.53*** (2.03, 15.08) | 2.94* (1.23, 7.07) | 2.69* (1.09, 6.67) |
| Overcrowding | | | | | | | | | |
| 1.5+ persons per room (11%) | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| Standard of living | | | | | | | | | |
| 1 s.d. below mean v. mean | NS | 1.73*** (1.39, 2.16) | 2.17*** (1.68, 2.82) | NS | NS | 2.05** (1.29, 3.26) | NS | 1.88*** (1.43, 2.46) | 2.05*** (1.48, 2.83) |
| Family proximity | | | | | | | | | |
| Parents and parents-in-law further than 30' away (30%) | 1.72* (1.07, 2.77) | 1.80** (1.15, 2.81) | 2.84*** (1.75, 4.60) | 3.25* (1.32, 8.05) | 2.32* (1.06, 5.06) | 3.64** (1.60, 8.26) | NS | NS | NS |
| Confidants | | | | | | | | | |
| Nobody to turn to when something bothering you or you are feeling low (12%) | 1.93* (1.03, 3.60) | 2.39** (1.34, 4.28) | 3.37*** (1.85, 6.13) | NS | NS | 2.67* (1.08, 6.56) | NS | 2.56* (1.19, 5.53) | 3.13** (1.38, 7.11) |

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

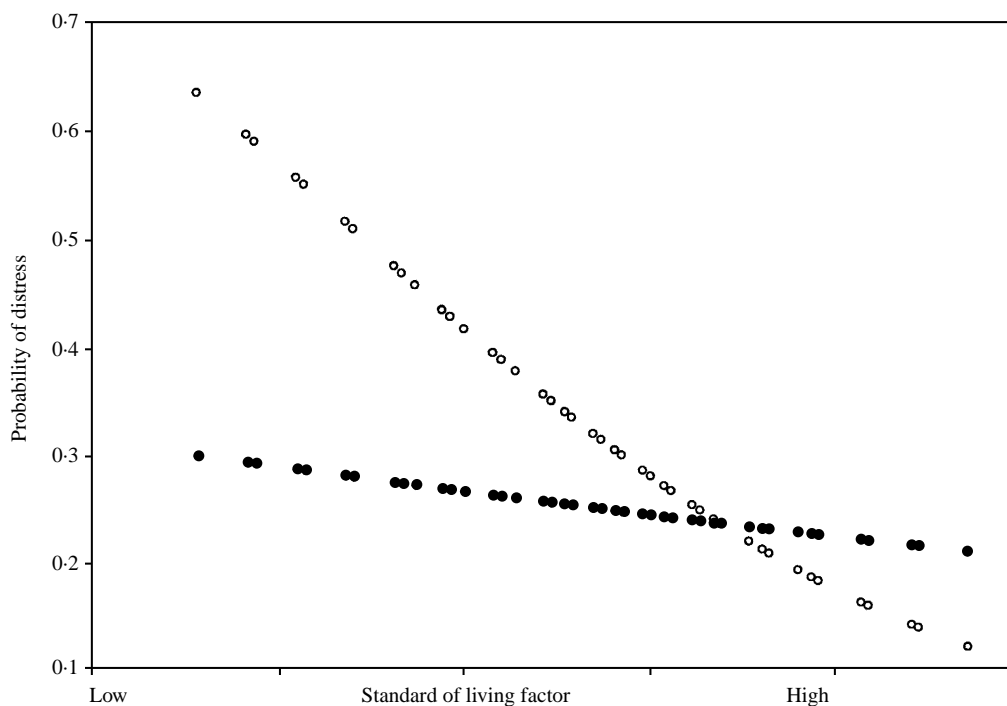


FIG. 1. Predicted probability of distress by standard of living: GHQ (●) compared with PSS (○).

descriptive background to what follows. South Asian women are more frequently distressed than general population counterparts on the Psychosomatic Symptom Scale and the self-assessed distress measure, but not on the GHQ-12. Women generally are more frequently distressed on the PSS and self-assessed distress measure than men. Ethnic group numbers by sex, and the overall prevalence of stressful situations, are given in the left hand column of Table 1. The prevalence of linguistic and religious differences is given in the first row of Tables 2 and 3.

Table 1 shows the extent to which each measure of distress is related to each stressful situation among the South Asian and general population samples, both separately and combined. Stressful situations here include absence of close family (parents and parents-in-law) and of confidants: the data were checked for statistical interactions but generally indicated that absence of these supporters is stressful in itself.

The results are presented as the likelihood, in terms of an odds ratio, of a distressed response on each measure when the stressful situation is

present, compared with when it is absent or present only to the lesser degree specified in Table 1. For example, in the fourth row and first column, a distressed response on the GHQ-12 is 2.49 times more likely when paid work is rated by respondents as giving them a great amount of stress compared with when it is rated as giving very little stress.

In the combined samples, three stressful situations are related to distress on all three measures: having very little satisfaction with work (paid or in the home), having parents and parents-in-law further than 30 minutes' journey away, and having nobody to turn to when something is bothering one, or one is feeling low. GHQ-12 scores show the strongest relationship with work satisfaction, and self-assessed distress the least; conversely GHQ-12 scores show the least relationship with absence of parents and parents-in-law or of confidants and self-assessed distress the greatest.

Three stressful situations are related to distress on the PSS and the self-assessed measure, but not on the GHQ-12: having been mugged or assaulted in the current area of residence,

Table 2. South Asians and general population aged 30–40 in Glasgow: subcultural groupings v. stressful conditions as predictors of distress on the Psychosomatic Symptom Scale (4 + items)

| | Analysis† | | | | | | | |
|---|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|------------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Subcultural groupings | | | | | | | | |
| Speaks English not very well/ not at all (10%) | 2.59** (1.33, 5.05) | 2.53** (1.29, 4.98) | 1.43 (0.62, 3.30) | 2.90** (1.41, 5.96) | 1.82 (0.88, 3.73) | 2.25* (1.13, 4.46) | 2.28* (1.14, 4.56) | 1.15 (0.47, 2.81) |
| Female | 1.66* (1.06, 2.60) | 1.69* (1.07, 2.66) | 1.55 (0.88, 2.73) | 2.23** (1.30, 3.85) | 1.56 (0.98, 2.47) | 1.61* (1.03, 2.53) | 1.82* (1.14, 2.91) | 1.50 (0.83, 2.71) |
| Stressful conditions (fuller description Table 1) | | | | | | | | |
| Mugged/assaulted | — | 4.81** (1.84, 12.59) | — | — | — | — | — | — |
| Stress in work around house | — | — | 3.65*** (1.77, 7.53) | — | — | — | — | 2.73* (1.27, 5.86) |
| Low satisfaction in work (paid/around house) | — | — | — | 3.81*** (1.76, 8.24) | — | — | — | — |
| Low standard of living | — | — | — | — | 1.71*** (1.35, 2.15) | — | — | 1.41* (1.07, 1.87) |
| Absence of parents and parents-in-law | — | — | — | — | — | 1.59 (0.99, 2.55) | — | 1.13 (0.63, 2.00) |
| No confidant | — | — | — | — | — | — | 2.29** (1.22, 4.30) | 1.49 (0.70, 3.17) |

† Odds ratios of distress from multivariate analyses (95% confidence intervals) (a blank indicates that the variable is not entered in the analysis concerned).

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

experiencing stress in work around the house, and having a low standard of living. These differences between measures were tested formally for interaction of the measure with stressful situations in eliciting a distressed response. The interaction of the measure with low standard of living is significant, both for the comparison between the GHQ and PSS ($P < 0.05$) and for that between the GHQ and self-assessed distress ($P < 0.01$). The predicted probability of a distressed response on the GHQ and PSS at a low standard of living is shown graphically in Fig. 1: only the PSS records high levels of distress in this situation. A graph comparing the GHQ and self-assessed distress (not shown) is similar, but with a more marked crossover, indicating low self-assessed distress at a high standard of living as well as high self-assessed distress at a low standard of living.

In addition, the interaction of scale type with stress in work around the house is close to significance ($P = 0.066$) when comparing the GHQ and PSS. Again, graphical representation of the interaction (not shown) is similar to Fig. 1, indicating that the PSS records high distress when household stress is high, and the GHQ does not. There is also a similar pattern for GHQ and PSS responses of those mugged and

assaulted, though numbers of these are too small to be significant.

One stressful situation is related to a distressed response on the GHQ-12 but not on the other measures: stress in paid work. The interaction of scale type with stress is not significant. Overcrowding is not related to distress on any measure.

Ethnic variations are also suggested, though the smaller sample sizes, especially for South Asians ($N = 159$), are reflected in the wider confidence intervals for many of the odds ratios reported in Table 1. First, the absence of parents and parents-in-law affects distress in the South Asian sample on all three measures, but is not related to distress on any measure in the general population. Secondly, the experiencing of mugging or assault affects distress only among South Asians, and only on the PSS. Interactions of these stressful situations with ethnic group are not significant.

Table 2 compares stressful situations with subcultural groupings as predictors of psychosomatic symptoms. In addition to women, limited English speakers show higher levels of distress on the PSS (37% of males with limited English do so and 53% of females). Table 2 considers whether these higher levels of distress

Table 3. South Asians and general population aged 30–40 in Glasgow: subcultural groupings v. stressful conditions as predictors of self-assessed distress (often sad/depressed in last year)

| | Analysis† | | | | | | | |
|---|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|-------------------------|------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Subcultural groupings | | | | | | | | |
| Muslim (14%) v. general population (71%) | 4.44*** (2.44, 8.08) | 4.29*** (2.34, 7.85) | 3.53*** (1.68, 7.44) | 5.74*** (2.93, 11.24) | 3.03*** (1.59, 5.85) | 3.42*** (1.82, 6.42) | 3.82*** (2.06, 7.10) | 2.14 (0.91, 5.03) |
| Female | 1.93* (1.16, 3.19) | 1.96* (1.17, 3.26) | 1.64 (0.86, 3.13) | 2.31** (1.27, 4.22) | 1.83* (1.07, 3.13) | 1.82* (1.09, 3.04) | 2.06** (1.22, 3.48) | 1.64 (0.79, 3.40) |
| Stressful conditions (fuller description Table 1) | | | | | | | | |
| Mugged/assaulted | — | 2.80* (1.05, 7.42) | — | — | — | — | — | — |
| Stress in work around house | — | — | 2.36* (1.09, 5.11) | — | — | — | — | 1.54 (0.66, 3.61) |
| Low satisfaction in work (paid/around house) | — | — | — | 3.77** (1.70, 8.39) | — | — | — | — |
| Low standard of living | — | — | — | — | 1.94*** (1.48, 2.55) | — | — | 1.72** (1.25, 2.38) |
| Absence of parents and parents-in-law | — | — | — | — | — | 2.15** (1.27, 3.62) | — | 2.03* (1.08, 3.80) |
| No confidant | — | — | — | — | — | — | 3.40*** (1.76, 6.55) | 3.30** (1.52, 7.17) |

† Odds ratios of distress from multivariate analyses (95% confidence intervals) (a blank indicates that the variable is not entered in the analysis concerned).

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

are potentially explicable by differential exposure of these subcultural groupings to stressful situations, in particular those situations which affect PSS responses in Table 1. Odds ratios of distress on the PSS are shown when women and limited English speakers are entered into a multivariate loglinear analysis on their own (analysis 1), when they are entered along with each of the six stressful situations taken separately (analyses 2–7), and when they are entered along with all those stressful situations that diminish the initial likelihood of distress shown in analysis 1 (analysis 8).

Thus, reading across the first row of Table 2, in analysis 1 the odds ratio of distress for limited English speakers is 2.59 ($P < 0.01$) – i.e. they are slightly over two and a half times more likely to be distressed than fluent English speakers. This odds ratio of distress is diminished when we take account of stress in work around the house (analysis 3), a low standard of living (analysis 5), absence of parents and parents-in-law (analysis 6), and absence of confidants (analysis 7). The odds ratio falls in analysis 8 to just 1.15 (NS) when these four stressful situations are included together. Meanwhile the odds ratio of distress for women (second row) falls only slightly, from 1.66 ($P < 0.05$) to 1.50 (NS) when all four are considered. However, stress in work around the

house and a low standard of living remain significantly related to distress on the PSS.

Table 3 repeats the exercise undertaken in Table 2, but considers stressful situations in relation to self-assessed distress. In addition to women, Muslims more frequently show high levels of self-assessed distress (45% of male Muslims do so, 52% of females). In the first row of Table 3, the odds ratio of distress for Muslims, initially 4.44 times greater than for non-Muslims, falls, just as they fell for limited English speakers in Table 2, when stress in work around the house, a low standard of living, absence of parents and parents-in-law, or absence of confidants are allowed for. The odds ratio in analysis 8, when all four stressful situations are considered, is 2.14 (NS). Similarly, the likelihood of distress for women falls slightly, the odds ratio being reduced from 1.93 ($P < 0.05$) to 1.64 (NS) when all four are considered. Meanwhile low standard of living, absence of parents and parents-in-law, and absence of confidants remain significantly related to self-assessed distress.

DISCUSSION

If we return to the propositions posed in the introduction, the data presented here suggest the following points.

1 The different measures of distress are indeed differentially responsive to stressful situations. Although distressed responses on all the measures are related to at least half of the stressful situations measured, the GHQ-12 is less responsive to some of these situations than the PSS and self-assessed distress. This is shown by significant interactions in the responsiveness of the measures to low standard of living, by a borderline interaction in the responsiveness of the PSS to stress in work around the house, and by suggestions of a possible similar effect among those mugged or assaulted. The GHQ-12 is related to stress in paid work, though not to the extent of creating a significant interaction between the measure and this type of stress. Absence of parents and parents-in-law and experience of mugging or assault where one is currently living are related to distress only in the South Asian population, though not to the extent of creating a significant interaction between ethnic group and scale type.

2 The apparent relation between the PSS or self-assessed distress and subcultural groupings is explained by the stressful situations to which these groups are exposed in Britain. In multivariate analysis the relation of distress to subcultural groupings becomes non-significant, while the relation of distress to stressful situations remains significant. This conclusion is subject to a caveat. One of the most important stressful situations is also indexed by one of our more subjective measures: self-rated stress in work around the house. This may affect distress, but it may also be affected by it. However, there are also associations between distress and stressful situations which are relatively objective, such as absence of parents and parents-in-law and a low standard of living. This suggests that mood state may not be particularly influential in reports of these stressful situations, and for the time being we should take seriously the possibility that stress in work around the house is causing the distress and not vice versa.

It seems, therefore, that subcultural effects in expression of distress are not great. We would suggest rather that British South Asians (here mainly Punjabis) do not respond in a consistently different way from the general population to clinically validated measures, or in the way they describe their own distress, or in their description of psychosomatic symptoms. Rather, they ex-

perience a different and more extended range of stressful situations, leading to distress which tends to be expressed in distinctive ways. There is no evidence that their vocabulary for inner states is more restricted, and we confirm that for present purposes terms such as *udasi* and *gamgini* (in Hindi, similar forms in Punjabi and Urdu) do much the same work as 'sad' or 'depressed' in English (Fenton & Sadiq-Sangster, 1996). Similarly, psychiatrists have found that a direct enquiry will elicit introspective descriptions from South Asians, though there may be a tendency to present somatic symptoms if no enquiry is made (Nayani, 1989).

Some cautions are appropriate in interpreting these data. As regards possible causes of distress, the principal omission is a measure of life events. Others (e.g. Uhlenhuth *et al.* 1973*a, b*, 1974) have assessed variations in the response of subcultural groups to life events. However, Cochrane & Stopes-Roe (1977) reported no excess of adverse life events among South Asians. Chronically stressful situations, which many argue are as likely to cause distress (De Longis *et al.* 1982; Avison & Turner, 1988), were instead selected here to reflect known aspects of British South Asians' experience, especially that of women, in a way comparable with that of the general population. This selection reflects the fact that South Asian women had previously emerged as a distressed group, and we sought an explanation; but the explanation will need replication. The measures also vary in 'hardness'. Relatively objective are having been mugged or assaulted in the current area, overcrowding, low standard of living and absence of parents and parents-in-law. More liable to influence by mood state are self-rated stress, low satisfaction in work, and absence of confidants. In a cross-sectional study the direction of influence is open to question.

As for the more general question whether psychological distress among South Asians has been underestimated, the GHQ-12 does seem to under-estimate psychological distress in South Asians, especially among women. It seems particularly to reflect stress at work, and is rather insensitive to domestic stresses and there is no sign that at the thresholds used here it taps a more serious level of distress (Williams *et al.* 1995).

Finally, we have provided evidence of causes

of distress which have been suspected but not documented. Of particular interest is the special importance for British South Asians born abroad of not having the parental generation nearby and of experiences of mugging or assault. Recognition of these two situations may alert clinicians to potential risks. The meaning of both is particularly threatening in this community, and assault, which may be played down verbally, is felt psychosomatically. Again, in Glasgow experiences of mugging or assault are not rare in the general population too, especially for men (Williams *et al.* 1994); but descriptions of the incidents experienced by South Asians often reveal racist connotations, and the knowledge that these are present – perhaps also uncertainty about whether they are present – may help to explain their particular threat. In the light of the *Health of the Nation's* targets for mental health, there is a public health interest in policies for reducing violence, especially racist violence. Finally, there is both a general public health interest and a specific clinical interest in increasing the help available to women in the South Asian community who have low incomes and little family support.

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