

# Psychological well-being and the dyadic relationship of Chinese menopausal women (and their spouses) attending hormone replacement clinics

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## ABSTRACT

*This survey examined the general health and the marital relationship of 122 Chinese menopausal women and their spouses attending hormone replacement clinics. Climacteric symptoms of the participants were assessed by the modified Greene Climacteric Scale (GCS). The psychological well-being of the participants and their spouses was assessed by the 12-item Chinese General Health Questionnaire (GHQ), and their marital quality was assessed by the Chinese Dyadic Adjustment Scale (DAS). The GCS scores of our cohort were significantly higher than that of a community-based sample of menopausal Chinese women. About one-third of the participants and one-fifth of their spouses suffered from reduced psychological well-being. Although the DAS total scores of the participants and their spouses were comparable to those of the adjusted couples in a younger population, the affectional DAS subscores were significantly lower. The GCS scores of the menopausal women were significantly positively correlated with their GHQ scores but negatively correlated with their DAS scores. In summary, the menopausal women attending the hormonal replacement clinics, especially those with more climacteric symptoms, suffered from significant psychiatric*

*morbidity and marital maladjustment. The psychological dimension of the menopause should never be neglected.*

## INTRODUCTION

The climacteric represents an important stage in a woman's life. A number of psychosocial events occur, such as change of role as a result of the 'empty nest', problems with aging parents, bereavement, marital difficulty, work and economic problems<sup>1</sup>. Climacteric symptoms as a result of hormonal changes, interacting with these psychosocial events, render this phase a potentially distressing period, not only for the menopausal woman but also for her spouse and family. In many Chinese populations, where more than 80% of menopausal women are married, the marital relationship has been shown to be related to menopausal symptomatology and the mood state<sup>2</sup>. While climacteric symptoms and long-term complications of the menopause have been widely investigated, there have been few studies on

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the psychological well-being and marital quality of menopausal women and their spouses.

There may be various reasons for attending hormone replacement clinics, with the suffering of climacteric symptoms being the commonest. However, the psychological dimension of menopause should not be neglected in this population, because it may be the hidden cause for the medical consultation. We conducted this survey to examine the general health and marital relationship of a group of Chinese menopausal women and their spouses recruited from hormone replacement clinics.

## METHODS

This study was approved by the Clinical Research Ethics Committee of the Chinese University of Hong Kong. A total of 122 Chinese menopausal women were recruited from the hormone replacement clinics of two regional hospitals in Hong Kong. They were married, had an intact uterus and had not been on any hormonal medication during the previous 6 months.

Basic sociodemographic data were collected from all potential participants. For those consenting to the study, the menopausal women filled in the Greene Climacteric Questionnaire (GCQ), the 12-item General Health Questionnaire (GHQ) and the Dyadic Adjustment Scale (DAS), while their spouses filled in the GHQ and the DAS.

### Outcome measures

The sociodemographic data included the age, place of birth, education level, occupation, duration of marriage, household size and monthly household income of the couple. The duration of menopause and a history of psychiatric illness of the menopausal women were also recorded.

Climacteric symptoms of the menopausal women were assessed by the modified GCQ, the Greene Climacteric Scale (GCS)<sup>3</sup>. Symptoms occurring during the climacteric may come from various domains and have different etiologies, so they should be categorized and measured separately. The GCS encompasses 21 items grouped into five dimensions, namely anxiety, depression, somatic symptoms, vasomotor symptoms and sexual symptoms. However, it omits measures of urogenital symptoms, so the sixth, urogenital, dimension was added in our modified version of the GCS. It included three items, namely

increased urinary frequency, urinary incontinence, and vaginal dryness. Each symptom was scored on a four-point rating scale ranging from 0 (not at all bothered) to 3 (extremely bothered), and scores were totaled to indicate overall severity of climacteric symptoms.

The psychological well-being of the women and their spouses was assessed by the validated 12-item Chinese GHQ<sup>4,5</sup>. This shortened form of the GHQ is easy to use in busy clinical settings and works as well as the longer version<sup>6</sup>. It was scored by the usual GHQ scoring methods (0-0-1-1), which is a better scoring method than for the Likert scale (0-1-2-3) and the C-GHQ (0-1-1-1) methods<sup>6</sup>. The threshold used to identify individuals with reduced psychological well-being was 3.5, which is the same as that used for the Chinese population in previous studies<sup>5</sup>, although it is higher than the usual threshold (1.5) used in other populations<sup>6</sup>.

Marital quality of the couples was assessed by a validated Chinese DAS<sup>7,8</sup>. This has been shown to correlate substantially with measures of marital satisfaction and marital expectation, and is able to discriminate subjects with and without marital maladjustment<sup>9</sup>. It encompasses 32 items grouped into four dimensions, namely marital consensus, satisfaction, cohesion and affectional expression<sup>7</sup>. The dimensions extracted were shown to be reproducible in both female and male samples<sup>7</sup>.

### Statistical analysis

Statistical analyses were performed using the Statistical Package for the Social Sciences Version 10.0 (SPSS Inc., IL, USA). Differences between groups were tested statistically by the use of the  $\chi^2$  test for categorical data and the independent sample *t* test for continuous variables. Pearson correlation analysis was used to determine whether significant correlations were present among the GCS, GHQ and DAS scores of the couples. Data were considered to be statistically significant with a *p* value of  $\leq 0.05$ .

## RESULTS

A total of 122 menopausal women agreed to participate in the study; ten refused. The spouses of 45 of these 122 participants also agreed to participate in the study. There were no significant differences in basic sociodemographic data between the women who

participated in the study and those who refused. There were also no significant differences in basic sociodemographic data between the women whose spouses participated in the study and those who refused. The sociodemographic data of the whole cohort are summarized in Table 1.

**Table 1** The sociodemographic data of the whole cohort of women patients ( $n = 122$ ) and their husbands

	Value
Age of patient (years)	50.7 $\pm$ 4.6
Age of husband (years)	55.6 $\pm$ 7.3
Place of birth of patient	
Hong Kong	52 (42.6%)
China	58 (47.5%)
Asia	7 (5.8%)
Macau	5 (4.1%)
Place of birth of husband	
Hong Kong	52 (42.6%)
China	66 (54.1%)
Asia	4 (3.3%)
Macau	0
Education of patient	
No formal education	11 (9.0%)
Primary level	63 (51.6%)
Secondary level	43 (35.3%)
Tertiary level or above	5 (4.1%)
Education of husband	
No formal education	7 (5.7%)
Primary level	40 (32.8%)
Secondary level	65 (53.3%)
Tertiary level or above	10 (8.2%)
Occupation of patient	
Housewife	69 (56.6%)
Working	53 (43.4%)
Occupation of husband	
Unemployed	31 (25.4%)
Working	91 (74.6%)
Duration of marriage (years)	25.8 $\pm$ 7.1
Household size	3.9 $\pm$ 1.0
Household monthly income	
< HK\$10 000	49 (40.2%)
HK\$10 000 to 20 000	40 (32.8%)
HK\$20 000 to 40 000	22 (18.0%)
> HK\$40 000	11 (9.0%)
Duration of menopause (years)	3.2 $\pm$ 3.7
Psychiatric illness	
No	117 (95.9%)
Yes	5 (4.1%)

Where applicable, values are mean  $\pm$  SD

### The GCS scores of the menopausal women

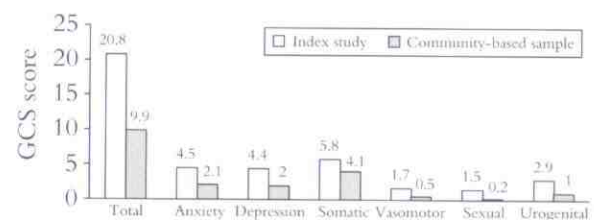
The mean GCS total score of our cohort was significantly higher than that of a community-based sample of menopausal Hong Kong Chinese women in our previous study (20.8  $\pm$  12.1 vs. 9.9  $\pm$  9.2,  $p < 0.01$ )<sup>10</sup>. The mean GCS total and subdivision scores of our whole cohort, compared against the community-based sample, are shown in Figure 1.

### The GHQ scores of the menopausal women and their spouses

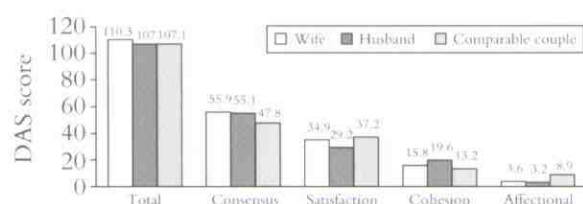
The mean GHQ score of the menopausal women ( $n = 122$ ) was 3.2  $\pm$  3.2. Forty-six (37.7%) scored above the threshold of 3.5. There were no significant differences in GHQ score between the women whose spouses participated in the study and those who refused. The mean GHQ score of the husbands ( $n = 45$ ) was 2.0  $\pm$  2.9. Nine of them (20.0%) scored above the threshold of 3.5. There was no significant correlation between the GHQ score of the women and their spouses ( $r = -0.03$ ,  $p > 0.05$ ).

### The DAS scores of the menopausal women and their spouses

The mean total DAS scores of the women and their spouses were comparable to those of the community-based couples in a younger population (110.3  $\pm$  18.8 and 107.0  $\pm$  17.0, respectively, vs. 107.1  $\pm$  17.3,  $p > 0.05$ )<sup>11</sup>. However, their mean affectional DAS subscores were significantly lower than those of the community-based couples (3.6  $\pm$  0.7 and 3.2  $\pm$  0.9, respectively, vs. 8.9  $\pm$  1.3;  $p < 0.05$ ). This is illustrated in Figure 2. There were no significant differences in DAS score between the women whose spouses participated in the study and



**Figure 1** Total scores and subscores of the modified Greene Climacteric Scale (GCS) of the subjects of the index study, as compared against the community-based sample of Hong Kong Chinese aged 40–60 years



**Figure 2** Total scores and subscores of the Chinese Dyadic Adjustment Scale (DAS) of menopaual women and their spouses in our whole cohort, compared against the couples in the reference population

those who refused. There was a significant positive correlation between the DAS score of the women and that of their spouses ( $r = 0.43$ ,  $p < 0.01$ ).

### The correlation of GCS scores of the menopaual women with the GHQ and DAS scores of the couples

The GHQ scores of the menopaual women were significantly positively correlated with their GCS total scores and all subscores. The DAS scores of the menopaual women were significantly negatively correlated with their GCS total scores, depression subscores and urogenital subscores. This is shown in Table 2. There were no significant correlations between GCS scores of the menopaual women and the GHQ or DAS scores of their spouses.

### The correlation of GHQ scores with DAS scores for the menopaual women and their spouses

The GHQ scores of the menopaual women were significantly negatively correlated with their DAS total scores ( $r = -0.20$ ,  $p = 0.05$ ), consensus subscores ( $r = -0.22$ ,  $p < 0.05$ ), cohesion subscores ( $r = -0.23$ ,  $p < 0.05$ ) and affectional subscores ( $r = -0.25$ ,  $p < 0.05$ ) but not their satisfaction subscores ( $r = 0.01$ ,  $p > 0.05$ ). There were no significant correlations between the GHQ scores and DAS total or subscale scores for the husbands.

## DISCUSSION

The climacteric in Chinese women is relatively under-researched in terms of experience, meanings and challenges faced. Despite the fact that menopause is generally recognized by the culture as a period of

**Table 2** Correlation of Modified Greene Climacteric Scale (GCS) total scores and subscores with the General Health Questionnaire (GHQ) and the Dyadic Adjustment Scale (DAS) scores for menopaual women

GCS scores	GHQ scores		DAS scores	
	Correlation coefficient	p Value	Correlation coefficient	p Value
Total	0.73*	< 0.01	-0.33*	< 0.05
Anxiety	0.65*	< 0.01	-0.22	> 0.05
Depression	0.71*	< 0.01	-0.34*	< 0.05
Somatic	0.64*	< 0.01	-0.29	> 0.05
Vasomotor	0.29*	0.05	-0.20	> 0.05
Sexual	0.32*	< 0.05	-0.05	> 0.05
Urogenital	0.46*	< 0.01	-0.33*	< 0.05

\* $p \leq 0.05$

profound change (the Chinese term for menopause – *gengnianqi* – literally means 'a changing time'), there is a relative dearth of data on the psychological, interpersonal and social effects of the transition.

The GHQ scores in our cohort were very high. About one-third of the women and one-fifth of their spouses scored above the cut-off level for reduced psychological well-being, indicating potential psychiatric conditions. While the lower GHQ scores of the husband than the wife may be due to genuine gender differences in well-being<sup>12</sup>, they may be related to gender effects on symptoms reporting. It has been shown that women are more willing than men to report distress and health problems<sup>13–15</sup>. Our results signify that a significant proportion of not only menopaual women but also their spouses suffered from psychological morbidity. This is supported by the low affectional DAS subscores of both the wife and the husband.

With such high psychological morbidity in the current sample, the authors acknowledge that this resulted from bias, as the subjects had been referred to a hormone replacement therapy clinic (HRT) clinic. The high GHQ scores and low affectional DAS subscores of menopaual women could be partly explained by the high prevalence of their climacteric symptoms. In a Caucasian population, it was shown that negative mood and poor quality of life were associated with increasing climacteric symptoms<sup>16,17</sup>. Moreover, it has been shown that midlife women who had more menopaual symptoms were unhappier with their marriages<sup>2</sup>. These associations were also observed in this study. In order to eliminate this selection bias and to determine the true extent of

the problem in the community, population sampling concentrating on general health and dyads in the menopausal transition will be needed. A community cross-sectional survey in USA in 145 menopausal women (71% of whom were White), showed that 24.6% of menopausal women reported a high level ( $\geq 10$ ) of depressive symptoms when the abbreviated Center for Epidemiological Studies Depression Scale was used<sup>18</sup>. The corresponding information in our local population is lacking. It was shown in a multi-ethnic study in the USA that psychological distress in association with natural menopause was significantly higher for Whites than for the other racial groups, such as the Chinese<sup>19</sup>. Since not only the race but also the local culture may affect psychological well-being, the extent of psychological morbidity among the Hong Kong Chinese menopausal women requires further elucidation.

Despite the potential bias of our study, the surprising psychological morbidity of the menopausal women (and their spouses) attending the clinics needs treatment. Hormone replacement is one of the most important treatments for estrogen-dependent menopausal symptoms<sup>20,21</sup>. Some forms of HRT have been shown to elevate mood and libido<sup>21,22</sup>. Further research is warranted to assess whether effective measures are available to alleviate this psychological morbidity. Psychological counseling should be an essential part of treatment for menopausal women.

Not only the menopausal women but also their spouses suffered from significant psychological morbidity. However, the GHQ score of the husbands was not correlated with the GCS or GHQ score of the menopausal women. Hence, relieving the climacteric symptoms and improving the general health of the menopausal women may not improve the psychological well-being of their spouses. Instead, the general health of the husbands may be related to unemployment, low income, reduced physical ability, personal sexual problems, the 'empty nest syndrome', marital difficulties or bereavement. While the psychological dimensions of both the menopausal women and their spouses should not be neglected, the factors affecting the general health of the husband require further investigation.

In conclusion, the midlife can present a potential crisis to both women and men, in forms of unexpected and unprecedented physical and psychosocial changes. Both psychological morbidity and marital maladjustment are possible, and were indeed common among our study population. While factors contributing to these sufferings may be different between men and women, and warrant further investigation, menopause may have a significant impact. Psychological morbidity during menopause needs to be further studied, preferably with population sampling. The potential of HRT as a measure to alleviate this morbidity should be explored with further research.

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