

Reynolds, F. (1999) Some relationships between perceived control and women's reported coping strategies for menopausal hot flushes. *Maturitas: The European Menopause Journal* , 32, 25-32.

Abstract

Objectives: This questionnaire study compared the patterns of reported coping strategies of women high and low in perceived control over hot flushes.

Method: A volunteer sample of 38 women fully completed a postal questionnaire.

Perceived control was measured by a standardised scale (Reynolds 1997a) and respondents provided qualitative accounts of coping.

Results: Consonant with previous findings that higher perceived control is associated with lower distress, the data indicated that women high in self-rated perceived control tended to describe more numerous coping strategies to manage both the physical and socio-emotional discomfort of flush episodes. Preventive strategies were infrequently adopted in both groups. However, the links between distress, control and coping were complex and subject to several influences. Those feeling low in control tended to report rather more numerous flushes (although the differences did not quite reach significance).

Also qualitative analysis of coping strategies suggested that it is not always coping behaviour **per se** that differentiates more and less distressed women, but **attitudes** towards these behaviours. A coping strategy (such as wearing cotton fabrics) that seems satisfactory to one woman may fundamentally challenge the body-image of another, increasing distress by making her feel drab and different from her pre-menopausal self. Also women often make reference to situational influences on their coping choices.

Conclusion: The data support further enquiry into the role of psychological interventions to enhance strategies for coping with hot flushes.

Introduction

Hot flushes are experienced at some point by the majority of peri- and post-menopausal women, giving rise to considerable distress in about 20% (Hunter 1989). Although flushes can be well controlled by Hormone Replacement Therapy, this medication is currently taken on a long-term basis by a minority of mid-life women in the UK (less than 10% according to Sinclair, Bond and Taylor 1993; Hammond 1994). Flushing can occur on a chronic basis, lasting for fifteen years or more (Kronenberg 1990). Women vary considerably in their pattern of flushing, with some simply noticing brief episodes of warmth whereas others experience noticeable sweating, sensations of high body temperature, rapid heartrate, and feelings such as faintness and anxiety (Voda 1981; Kronenberg 1990). Individuals usually find their hot flushes to be unpredictable, with great variations in duration, frequency and body areas affected (Voda 1981). There is seems to be a close relationship between objective measures of flushing and subjective awareness (Freedman 1989).

Although large numbers of peri- and post-menopausal women encounter hot flushes over many years, there has been limited research concerning their coping strategies (eg Abraham, Llewellyn-Jones & Perz 1994). There are indications that women who are depressed or low in self-esteem may be relatively more distressed during flushing (Hunter & Liao 1995) and these psychological states are known to be associated with passivity and limited coping repertoires. Matthews (1992) has argued that depression is most likely to occur in the peri-menopausal period when hot flushes are first encountered, and that distress may decline as coping strategies are discovered.

There is support for a link between distress, control and coping in other health conditions. For example, research into coping with chronic rheumatoid arthritis suggests that personal coping strategies and positive attitudes can decrease a sense of helplessness, depression and restriction in daily living (Keefe et al 1989) and are beneficial for well-being in the longer-term (Smith et al 1994). Having a flexible rather than restricted coping repertoire has been shown in a qualitative interview study to be advantageous for living with rheumatoid arthritis (Blalock et al 1993). Individuals with high perceived control also seem to cope more positively with low back pain and tinnitus (Coles & Hallam 1987; Spinhoven & Linssen 1991). More generally, among the healthy, it seems that willingness to engage in health promoting behaviour is associated with perceived control over health (Ziff, Conran & Lachman 1995). In the context of menopause, Hunter & Liao (1995) reported that women who regarded their flushes as less problematic described themselves as having greater control. Reynolds (1997a) found similarly that self-rated distress during flush episodes was more closely related to perceived control (measured on a standardised scale) than to flush frequency or chronicity.

Evidently, many questions remain about women's coping strategies for hot flushes, and their relationships to perceived control and distress. Some studies have revealed that women commonly cope with flushing by attempting to cool down (removing a layer of clothes, seeking fresh air or having a cold drink). In the study by Voda (1981), 31% of recorded flushes were tackled in this way. Hunter & Liao (1995) found that 55% of their sample reported coping through 'cool-down' strategies. However, these studies also reveal that many women tolerate flushes without any active behavioural response. In

Voda's study, 25% recorded flushes were met by 'doing nothing'. Hunter & Liao (1995) report that in their sample, 32% women described ignoring flushes and carrying on 'as usual'.

Several studies suggest that women can learn more effective strategies for coping with hot flushes by adopting behavioural methods of relaxation (Freedman & Woodward 1992; Wijma et al 1997) or combining cognitive and behavioural strategies (Hunter & Liao 1996; Stevenson & Delprato 1983). Such strategies typically not only alleviate psychological distress but reduce flush frequency, possibly through decreasing vigilance about flushing or by damping down physiological arousal.

The present study sought to explore the range of women's coping strategies and their relationships to perceived control over flushing, using a mixed qualitative/ quantitative methodology. The perceived control measure has already been shown to relate inversely to distress during flushes, and the current study now examines whether women high in perceived control report more numerous or distinctive coping strategies, compared with women lower in perceived control.

Categorising coping strategies

Coping strategies may include responses that shorten or ameliorate the physical sensations of flushing. However, well-being may also be improved through managing psychological responses to flush sensations such as anxiety, or embarrassment. In the latter case, coping may not be directed primarily at reducing the objective frequency or

duration of flushing but may instead aim to moderate the subjective experience of helplessness.

Although many researchers have used the distinction between problem-focused and emotion-focused coping (Lazarus & Folkman 1984), an alternative categorisation of strategies was adopted in the present study. This was because, in the context of coping with flushes, women often describe the flush 'problem' in terms of emotional difficulties such as sense of social rejection, finding the self negatively labelled as 'menopausal' or the unpredictable loss of control, as well as attributing distress to physical discomfort. Following Matheny et al (1986), a distinction has been made between **combative** and **preventive** coping strategies. Themes derived from content analysis were grouped as 'combative' coping strategies if their purpose was immediate management of flush episodes and as 'preventive' coping strategies if they aimed either to reduce the likelihood of flushes occurring or aimed to increase general coping resources. Combative coping was viewed as having two main components - techniques for the management of physical signs of the flush (e.g. cool-down techniques for reducing the intensity or duration of heat and sweating sensations) and techniques for managing cognitive and emotional distress (eg calming anxiety, challenging negative thoughts, finding humour during flush episodes). Such a distinction acknowledges that distress may reflect both physical discomfort and psychological reactions to an unpredictable and socially problematic body state. Preventive coping was also regarded as potentially addressing physical and psychological aspects of flushing, as some strategies may aim to reduce the objective likelihood or intensity of flushing (e.g. by wearing loose and light clothing, or avoiding enclosed, hot spaces) and some may

attempt to enhance general psychological resources for coping (e.g. managing life stress, developing positive attitudes to ageing, and increasing social support).

METHOD

Participants:

The method of recruitment of the sample has already been described (Reynolds 1997a). In brief, a volunteer sample was recruited through newspaper requests for women currently experiencing menopausal hot flushes to take part in a postal questionnaire study concerning their experiences. A larger sample was recruited but this report focuses on the 38 women who completed both the Perceived Control Index (PCI) in full and who provided qualitative accounts of their coping strategies (or lack of coping). The women's mean age was 51 years. They had been experiencing hot flushes for a mean of 4.6 years (range 1-16 years). Twenty eight of the sample were in full-time or part-time work. Eighteen of these were in professional or managerial positions, eight were in clerical or customer services posts and two were students in higher education. Thus the sample was mostly drawn from higher social groups. About three quarters of the sample were living with partners and 12/38 had grown-up children or dependants living in their homes.

Questionnaire Measures

The postal questionnaire gained extensive information. This paper focuses on perceived control measures and qualitative accounts of coping strategies for hot flushes. The Perceived Control index (PCI) invites agreement or disagreement to 15 statements, such as 'I can reduce my distress during hot flushes by remaining calm and relaxed'. The

development of the scale has been described in Reynolds (1997a). Links between perceived control, distress, flush frequency, chronicity and self-esteem have been reported in the previous paper.

Coping strategies for hot flushes

Reported coping strategies for hot flushes were subjected to a qualitative data analysis. Following the order of activities suggested by Crabtree & Miller (1992), content analysis of respondents' accounts was achieved through repeated reading and re-reading (immersion in the data); identification and coding of specific strategies; and grouping into the broader categories of combative and preventive coping. To reduce bias, coding was carried out blind to the respondents' PCI scores. The author also checked reliability of coding through blind recoding and through discussion with a second coder (reaching in excess of 90% agreement). Where coping strategies (such as 'keeping windows open') could be regarded both as combative (reducing flush intensity) and preventive (attempting to reduce the likelihood of flushes occurring), they were rated as combative. This decision maintained the accuracy of the total number of coping strategies derived from the qualitative accounts, but could underestimate the use of preventive strategies. The use of herbal and vitamin supplements was placed in a separate category. Whilst potentially health promoting, they may also represent a convenient form of 'medication' rather than an active or behavioural coping strategy. In the account below, the quantitative relationships between reported coping strategies and PCI scores are first examined, followed by more detailed exploration of the qualitative material.

RESULTS

Perceived control index

In order to compare women contrasting in perceived control, a median split was adopted. The 19 women whose scores fell above the median value of 34 are referred to as the High Perceived Control (HPC) group. The remainder are the Low Perceived Control

group (LPC). The median PCI score in the HPC group was 40 and the median value in the LPC group was 28. The two groups did not differ in age or chronicity of flushes. The HPC group reported somewhat fewer flushes daily (7.9) compared with the LPC group (11.6) but this difference did not quite reach significance.

Relationships between perceived control and coping strategies

**Insert Table 1 here

Table 1 reveals that the High PC and Low PC groups showed many differences in the number and pattern of their reported use of coping strategies. Most noticeably, and least dependent on the coding frame, was the difference in total number of coping strategies described, with high PC women typically including more numerous ideas in their accounts. All of the high PC group offered at least one coping method whereas three women in the low PC group offered none. Sixteen of the high PC group referred to two or more strategies but only six did this in the low PC group. The groups did not differ significantly in their use of herbal and vitamin supplements, nor in their reporting of preventive strategies. The high PC group made more reference to both physical and psychological techniques for dealing with flush episodes. In the low PC group, 15/19 women made no reference to physical 'cool-down' methods, (compared with only 4/19 in the high PC group). Psychological stress management, such as staying calm, was attempted by 14/19 of the high PC group but by only 8/19 women with lower control.

Qualitative accounts of coping repertoires

The written accounts of several women in the high PC group revealed a flexible repertoire of strategies including cool-down techniques and psychological stress management. For example, the respondent with the highest PCI score (48) reported lowest distress (12 on a scale 0-100) during flushes, and combined the use of vitamins, clothing choice and disclosure to others, reflecting positive attitudes to the menopause:

‘Megadoses of vitamin C, ‘dressing to flush’ (I wear layers of clothes so that I can take off or put on garments depending on the needs of flushing), being very open and admitting that I’m having a hot flush. I’ve never tried to hide the fact that I’m menopausal and I often say ‘Is it hot in here or am I having a hot flush?’ I believe that women have a lot to gain by ‘coming out’ as menopausal.’

Personal discovery of positive ‘self-talk’, reminiscent of techniques of cognitive behavioural therapy, had been discovered by some women, mostly those with higher levels of perceived control. The following view was expressed by a woman with a PCI score of 42 and distress rated as 19/100.

‘I literally say to myself ‘this is not panic, it’s menopause and refuse to feed into an anxiety scenario. I watch it quite calmly and let it be. Physically I tend to wear thinner layers of clothes and peel them off when there’s need’.

Another respondent (PCI 41; distress 43) provided a further example of a mixed repertoire of techniques to combat flush discomfort by drawing on herbal supplements, psychological stress management and social disclosure:

‘Herbal supplements, eg ginseng. Staying calm. Letting the flush pass without being hooked by the feelings. Take a break or fresh air if possible. Letting people know ...that I’m temporarily finding it difficult to concentrate (or why I’m being irritable)’.

For some respondents, lack of control was explicitly regarded as a problem, and possibly the coping strategies adopted did not address the most distressing aspects of the flush experience:

‘I feel as if I am inside a body over which I have no control. I try to laugh.’
(respondent’s PCI 20; distress 92).

Interestingly, the person with the lowest reported distress (44) within the low PC group (PCI 27) identified a psychological approach to managing distress:

‘I try to keep calm and philosophical’.

Choosing coping strategies: some complexities

a) coping strategies may increase stress further

In qualitative data analysis, it is important to look for ‘unexpected’ data that do not fit the broader patterns (Coffey & Atkinson 1996). In the present study, there were a few women with apparently high perceived control who yet reported quite high levels of distress. Conversely, low levels of distress co-existed with low perceived control for some women. Whilst the findings remain tentative, because of small numbers, both the broader meanings of flushing for these women and the stressful nature of some coping

strategies may provide some explanation. For some women, high perceived control may reflect beliefs that control 'ought' to be achieved, placing pressure on the self to achieve. Such an attitude may predispose the woman towards self-blame and to regard all her coping attempts as unsatisfactory. Furthermore, a large repertoire of coping strategies may paradoxically create stress by unduly restricting lifestyle. The following account seems to illustrate these problems (high PCI 45; high distress 70):

'I drink several glasses of water during the day. Psychologically I realise that I just have to get on with it but sometimes I wonder just how long it will go on for (the menopause). I wonder how long I can put up with it. I cope by a change of diet, take vitamin E and oil of evening primrose, cool drinks, exercise. I try to keep out of stressful situations. Have a rest by day especially after a sleepless night. Have plenty of congenial companions around'.

Some women, more so in the low PC group, described a few coping strategies but regarded these as rather costly in psychological terms, largely because they undermined their self-image:

'I take off a jacket/cardigan so I cool down quicker. Cotton underwear. Stockings rather than tights. Avoid tight clothing - keep it loose if possible (this makes me feel frumpy)'.

b) coping choices may be situation-dependent

Whilst the women's coping repertoires were broadly related to their beliefs about control, qualitative analysis also revealed that a substantial sub-sample regarded their

coping choices as dependent upon the social situation in which the flush occurs, rather than simply reflective of personal preferences:

‘If alone I try to disregard the flushes and discard layers of clothing. But if I’m at work or out at social occasions I feel acutely distressed, especially if my clothes become damp from sweat.’

‘[When out].. I stop strenuous activities like walking up a hill until the flush is over. But in a public place, meeting etc where you have to say put, I just relax and accept it’.

Work situations were often construed as limiting coping choices, particularly in discouraging overt ‘cool-down’ tactics that draw attention to the woman’s body.

DISCUSSION

Women’s accounts of their coping strategies revealed numerous ways of dealing with the discomfort of hot flushes, with wide individual differences in coping responses. As a group, women with higher levels of perceived control reported less distress during flushing and described more numerous coping strategies, including the use of behavioural cool-down behaviours as well as emotional stress management during flush episodes. These data raise the question of whether some of the women in the studies by Voda (1981) and Hunter & Liao (1995) who report 'doing nothing' were in fact practising psychological techniques of acceptance, distraction and so on. The findings support the studies noted earlier (eg Blalock et al 1993) which emphasise the adaptiveness of a flexible coping repertoire.

Contrasting with the view of Matthews (1992), there was no evidence that women's distress declined with longer experience of hot flushes. The high perceived control, less distressed group had experienced flushes for somewhat fewer years, although the differences did not reach significance. However, it must be acknowledged that the nature of the sampling method may have encouraged participation largely by women who were continuing to see flushes as at least somewhat problematic.

Although the quantitative measures were largely congruent with the qualitative accounts of coping, the group relationships between distress, control and coping certainly did not apply to all individuals in the sample. Some women reported a large repertoire of coping responses and yet high levels of distress. The qualitative analysis of women's accounts suggested that for some, coping strategies may carry implications for self-image. It may not only be the flush itself that undermines the woman's self-image as a competent and socially acceptable adult. Some women described the coping strategies they had adopted to deal with flushes as discomforting as well. For example, although opening a window at work may bring down body temperature, greater discomfort may be experienced from social embarrassment. A behaviour that one woman finds effective for reducing distress (such as wearing removable layers of clothes or avoiding silky materials) may challenge another woman's image of herself, making her feel less attractive or simply different from her pre-menopausal self. She may experience the coping strategy as enforced rather than chosen, and feel resentful about it (e.g. having to avoid make-up so that she can wipe or wash away frequent perspiration; wearing hair tied up rather than loose). Through these lenses of personal meaning, a strategy useful

for managing the specific physical sensations of heat and sweating may nevertheless decrease general psychological well-being.

Choice of coping strategy is complex and should not only be linked to personal variables such as perceived control. Several women regard their coping attempts as highly circumscribed by the social situation. For example, embarrassment about flushing in social situations can be magnified by 'cool-down' behaviours, such as removing a sweater or jacket. The data revealed a strong tendency for women high in perceived control (and lower in distress) to practise psychological stress management during flush episodes (relaxation, visualisation, acceptance and so on). It remains unclear whether such strategies are particularly effective because open to **covert** practice by the woman, reducing the embarrassment that may occur when behavioural 'cool-down' responses 'announce' the flush to others. Although caution is needed in interpretation, the qualitative accounts indicate that coping responses are determined by the woman's relation with the social context as well as her preferred coping style. It must be acknowledged though that the impact of the social situation may be particularly potent for this sample of largely middle class, mostly employed women. Whether women from a greater variety of social and educational backgrounds perceive flush difficulties in shared ways requires further exploration.

The qualitative accounts certainly suggest caution in the use of standardised scales such as the COPE (Carver et al 1989). The COPE invites respondents to indicate the frequency with which they use various presented coping strategies (such as 'I get upset and let my emotions out'). The accounts gathered in this study suggest that a strategy frequently

used in one situation (eg removing a layer of clothing at home) may be infrequently adopted in another situation (eg the woman may attempt to ignore the flush at work). Coping scales may be more accurate if respondents are permitted to indicate how their behaviour reflects situational factors as well as personal values.

There is much more to discover about the coping choices that women make during flush episodes. Clearly a relatively small sample has been surveyed. Both the cross-sectional data and the inability to probe written descriptions for further meanings limit the information gained by this study. The possible influence of flush frequency on women's beliefs in control and effective coping needs much further enquiry. Open-ended interviews would enable women to report at much greater length on their current coping strategies, their development over time, their subjective efficacy and the influences of the social environment. A wider representation of social groups would be desirable. However, the questionnaire method permitted qualitative self-reports to be compared with quantitative measures and has revealed that relationships between perceived control, distress and coping strategies are complex.

With caution, the qualitative data suggest that (for some women at least) high levels of distress during flushing may reflect a challenged self-image, both from the meanings attached to the flush experience itself (e.g. thoughts about being out of control, menopausal and so on) and from negative interpretations of coping strategies (e.g. as enforcing a change in self-presentation). Further investigation on this matter is needed.

No clearly beneficial coping strategies have emerged from the accounts, but it appears that women unable or unwilling to embark on medical treatment for hot flushes may find it useful to examine the psychological facets of the experience and widen the use of active methods for combating flush discomfort and distress. Some further suggestions for counselling and health promotion professionals who are working with mid-life women are given in Reynolds (1997b). As noted in the literature review, previous intervention studies support the value of relaxation techniques and cognitive behavioural methods for coping with hot flushes. The helpful self management techniques described and explored in this study resemble aspects of these more formal interventions.

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Table 1: Comparing the coping strategies reported by high and low perceived control groups (N=19 in each group; mean no. coping strategies per category (and range) ; Kruskal-Wallis statistic H; significance level p)

Coping strategy	Mean (and range) described by:		H	p
	HPC	LPC		
Combative (phys)	1.21(0-2)	0.21(0-1)	14.70	0.0001
Combative (psych)	1.84(0-5)	0.47(0-2)	8.88	0.003
Preventive (phys)	0.84(0-4)	0.63(0-4)	0.66	-----
Preventive (psych)	0.27(0-1)	0.05(0-1)	3.08	-----
Vitamin suppl.	0.26 (0-2)	0.16(0-1)	0.62	-----
Total	4.42(1-8)	1.53(0-5)	14.76	0.0001

(Non-parametric Kruskal-Wallis two-group comparisons were appropriate as distributions on the above variables were non-normal)