Gender differences in coping strategies of parents of children with Down syndrome

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Abstract - Little research has been conducted on the reactions of parents, and fathers in particular, following the birth of a child with Down syndrome. Previous studies suggest that gender differences exist in coping strategies and a number of theories have supported this. The current study is informed by Pleck's (1981) Gender Role Strain model which attempts to explain the different socialisation processes males encounter which influence their development in our society. Questionnaires from Carver, Scheier and Weintraub's COPE inventory (1989) were given to parents (n = 150) to measure coping strategies and a number of gender differences were found. Females scored significantly higher than males in seeking instrumental and emotional support; in focusing on and venting emotions; and suppression of competing activities. An additional analysis carried out on parents of young children (n = 74) yielded similar results. The overall findings from the study provides mixed implications for Pleck's theory. Gender differences were found but no value can be ascribed to these different coping strategies.

Keywords: Down syndrome, coping strategies, gender, parent

Introduction

Few studies have investigated the reactions of fathers to the birth of children with special needs (Hornby, 1996). The majority have reported mothers' responses or mothers' perception of fathers' reactions, feelings and needs (Herbert, 1995). Thus there is a large gap in our understanding of the coping strategies of parents, and particularly of fathers, following the birth of a child with Down syndrome. Herbert's study yielded a number of interesting findings. Fathers were largely ignored by health professionals and supporting agencies. Indeed no attempt was made to gauge paternal reactions. Although mothers felt their partners had difficulty discussing sensitive issues there was an acknowledgement that little was known about the fathers' reactions. During the study none of the fathers mentioned their own feelings following the diagnosis. Their priority and main focus, as with the supporting agencies, was with the mothers. This suggests that mothers and fathers responded to this event using different coping strategies and it is the purpose of this study to identify these differences. The purpose is not however to promote one form of coping above another, nor is it to propose that people should change, rather it is to elucidate any gender differences that do exist. The possible reasons for these differences will be discussed focusing on Pleck's (1981) Gender Role Strain (GRS) model. An identification of these differences and possible causes may hopefully aid parents and support professionals in the future to a better understanding of gender specific reactions and emotions at what can be a very stressful time.

A number of previous studies already demonstrate gender differences across a broad spectrum of situations such as student coping strategies (Arthur, 1998; Rijavec & Brdar, 1997). Findings suggest that girls are more likely to use social support (Siu & Watkins, 1997) but report more daily stress and depression (Curle & Williams, 1996; Groer, Thomas & Shoffer, 1992). Females report greater use of coping via social relationships and emotional venting (Hastings, Anderson & Kelley, 1996; Matuszek, Nelson & Quick, 1995), here defined as an increased awareness of one's emotional distress and a concomitant tendency to discharge those feelings. However, females report more problems focused on self whereas males use more direct action (Porter & Stone, 1995; Ptacek, Smith & Dodge, 1994). It may be too simplistic to suggest that while boys play sport, girls turn to others (Frydenberg & Lewis, 1993), however this is supported by Plancheral and Bolognini (1995) who found that boys turn to humour, or hobbies such as sport. Gender differences in coping could be interpreted as evidence for gender role socialisation of emotions (Hoffner, 1995). Ptacek, Smith and Zanas (1992) found more problem focused coping in men and more support seeking and emotion focused responses in women. Women, then, tend to put more energy into their friendships and value them more (Ogus, Greenglass & Burke, 1990).

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The question arises whether these differences are maintained or exaggerated in times of extreme stress. McGreal, Evans and Burrows (1997) found differences between mothers and fathers when coping with the loss of a child through still-birth or miscarriage. In particular, women tended to blame themselves more (Schwab, 1990). Sigmon, Greene, Rohan and Nichols (1996) found males scored higher on acceptance whereas females used more emotion focused coping, after childhood sexual abuse. Additionally females reported greater trauma related distress than males. Similar results were found after the 1989 Newcastle earthquake in Australia (Carr, Lewin, Webster & Hazell, 1995) and with mothers of children with disabilities (Krauss, 1993). Cheng (1995), investigating Down syndrome in particular, found that mothers used various coping methods but had low levels of mastery and optimism compared with males.

A coherent set of theories have developed since the 1930's concerning male psychology, labelled the male sex role identity (MSRI) paradigm (for a review see Pleck, 1981). This paradigm states that sex role identity derives from identification modelling and to a lesser extent reinforcement and cognitive learning of sex typed traits, especially among men. According to MSRI theory the major problem of psychological development is establishing a sex role identity. This identity is extremely fragile and especially so for men. Thus the MSRI holds that developmental problems lie with the individual rather than the nature of sex roles. Pleck gives a detailed criticism of this paradigm and puts forward an alternative model, which will be used in the current study. Instead of viewing these traditional roles as desirable or necessary Pleck views them as limiting and constricting.

Pleck's (1995) Gender Role Strain (GRS) Paradigm suggests three broad areas about how masculine cultural standards have negative effects. Gender Role Discrepancy concerns failure to fulfil male role expectations. This leads to low self esteem and psychological problems. The socialisation process itself is also problematic causing Gender Role Trauma. Even those individuals who fulfil the male role subsequently have negative psychological consequences (e.g. low levels of family participation) causing Gender Role Dysfunction. Pleck suggests that men feel the need to prove their masculinity in a way that does not have a parallel in women needing to prove their femininity (Gilmore, 1990). This may be criticised by feminist arguments concerning issues of motherhood and physical appearance, however it is hard to find a factorial conception of the female role similar to Brannon and David's (1976) four factors of the male role; i) No sissy stuff; ii) The big wheel; iii) Sturdy oak; iv) and 'give them hell'. Interestingly, their third factor is a phrase that is exactly matched in Herbert's (1995) study of fathers' responses to having a child with Down syndrome. The fathers consistently reported that their main role was that of supporting their partners.

Thus Pleck's GRS theory would suggest that males react differently to females in certain situations and the consequences of this behaviour would also differ. In particular following the birth of a child with Down syndrome, parents' coping strategies and the psychological consequences of these strategies, will be influenced by gender and might be in line with the GRS model. In order to measure these differences in the current study Carver, Scheier and Weintraub's (1989) Cope Inventory will be used. The full list of sub-sections can be seen in Figure 1.

1. COPING = Active coping; taking action, and exerting efforts, to remove or circumvent the stressor.
2. PLANNING = Planning; thinking about how to confront the stressor, planning one's active coping efforts.
3. INSTRUME = Seeking instrumental social support; seeking assistance, information, or advice about what to do.
4. EMOSUPP = Seeking emotional social support; getting sympathy or emotional support from someone.
5. COMPETE = Suppression of competing activities; suppressing one's attention to other activities in which one might engage, in order to concentrate more completely on dealing with the stressor.
6. RELIGION = Turning to religion; increased engagement in religious activities.
7. GROWTH = Positive reinterpretation and growth; making the best of the situation by growing from it, or viewing it in a more favourable light.
8. RESTRAIN = Restraint coping; coping passively by holding back one's coping attempts until they can be of use.
9. ACCEPTANCE = Acceptance; accepting the fact that the stressful event has occurred and is real.
10. EMOTION = Focus on and venting of emotions; an increased awareness of one's emotional distress and a concomitant tendency to discharge those feelings.
11. DENIAL = Denial; an attempt to reject the reality of the stressful event.
12. MENTAL = Mental disengagement; psychological disengagement from the goal with which the stressor is interfering, through daydreaming, sleep, or distraction.
13. BEHAVIOR = Behavioural disengagement; giving up or withdrawing effort from the attempt to attain the goal with which the stressor is interfering.
14. ALCOHOL = Use of alcohol and drugs.
15. HUMOUR = Use of humour as a coping mechanism.

Figure 1. Carver** et al **(1989) COPE inventory sub-sections and key for results section

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Many of the sections of Carver *et al*'s Inventory are linked to research evidence already mentioned. The higher levels of seeking instrumental and emotional social support in females has been supported by Rijavec and Brdar (1997) and Ptacek *et al* (1992). Fathers might be expected to demonstrate higher levels of acceptance (Sigman *et al*, 1996) and positive reinterpretation and growth (Cheng, 1995). Males have also been shown to use humour as a coping strategy (Plancheral & Bolognini, 1995). However, females have demonstrated higher levels of denial (Newton & Houle, 1993; Rokach, 1999) and focusing on emotions (Hastings, *et al.*, 1996). Other studies have shown a gender difference in attitudes toward religion (Levitt, 1995) and active coping (Matuszek *et al*, 1995). Krugman (1995) suggests that the use of alcohol is a gender linked response, with men abusing alcohol four to five times as much as women and drugs twice as much. Brooks and Silverstein (1995) support this, viewing alcohol abuse as a product of differential gender socialisation. Studies demonstrating females' greater use of emotions and seeking of emotional support provide evidence for Pleck's theory. However, contrary to the research mentioned, he would suggest that the male style of coping is dysfunctional and thus higher levels of denial, mental disengagement and behavioural disengagement would be expected. Additionally, males would score lower on acceptance and positive reinterpretation and growth.

This broad range of evidence and theory leads to a stereotypical view of male coping style. However, due to a lack of literature on fathers of children with Down syndrome in particular it is not possible to make a directional prediction regarding the results. Thus the hypothesis tested is that there will be gender differences in coping behaviour as defined by the sub-sections of the Cope Inventory (Main Study). It is also hypothesised that coping differences may change with the development of the child. Therefore a second analysis will be carried out on parents of children 5 years or younger (Young Children Study).

Method

Participants

Main study

There were 150 participants consisting of 78 males and 72 females, who were parents of children with Down syndrome. All participants were subscribers to either the *Down's Syndrome Association Newsletter* or *The Down Syndrome Educational Trust Newsletter* and responded to an advertisement placed in these magazines. They were comprised of 69 couples, one adoptive couple, 8 single males and 2 single females. Their children with Down syndrome consisted of 43 males and 37 females. The mean ages and age range for these groups are shown in Table 1.

		Mean age (years)	Age range (years)
Parents:	Total n=150	42.01	23-81
	Males n=78	43.05	23-81
	Females n=72	40.87	26-73
Children:	Total n=80	8.12	3 months -39 years
	Males n=43	8.38	5 months - 39 years
	Females n=37	7.82	3 months - 35 years

Table 1: Mean age and age range for main study participants

Young children study

The participants were a sub-section of the main study consisting of 37 couples with a child with Down syndrome 5 years of age or younger. Mean ages and age range can be seen in Table 2.

		Mean age (years)	Age range (years)
Parents:	Total n=74	36.37	23-56
	Males n=37	37.13	23-56
	Females n=37	35.62	26-46
Children:	Total n=37	2.16	3 months-5 years
	Males n=18	2.12	5 months- 5 years
	Females n=19	2.20	3 months- 5 years

Table 2: Mean age and age range for 'young children' study participants

Measure

Coping style was assessed using the Carver, Scheier and Weintraub's COPE inventory (1989). The COPE inventory has 15 sub-sections each of which has a minimum score of 4 and a maximum score of 16. The inventory contains four items per sub-scale, with a total of 60 items. For a description of the sub-sections see Figure 1. In addition, a covering letter describing the study and giving instructions was sent out with each questionnaire.

Procedure

Two copies of the questionnaire and a covering letter were sent, with a stamped addressed envelope, to 108 respondents (216 questionnaires in total). Of these 80 completed scales were returned (37% return rate). The covering letter requested that participants complete the questionnaire in isolation from their partners and without discussing it first.

Results

Results from the main study including all parents will be presented first, followed by results from the sub-sample of parents of young children (age < 5 years). Independent sample t-tests (two-way) were used to test the difference between males and females on each of the COPE Inventory sub-scales.

Significant differences between males and females in the main study were found in the following areas: planning,

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COPE Scales	Gender	Mean scores	Standard deviation	t
Active coping	Males	11.41	2.65	-1.724
	Females	12.15	2.62	
Planning	Males	11.55	2.98	-2.406*
	Females	12.68	2.75	
Seeking instrumental social support	Males	9.63	3.14	-5.051**
	Females	12.24	3.18	
Seeking emotional social support	Males	8.20	2.97	-6.612**
	Females	11.71	3.51	
Suppression of competing activities	Males	8.76	2.65	-3.059**
	Females	10.10	2.71	
Turning to religion	Males	6.50	3.83	-2.728**
	Females	8.44	4.88	
Positive reinterpretation and growth	Males	12.41	2.77	-1.912
	Females	13.24	2.50	
Restraint coping	Males	9.41	2.73	0.621
	Females	9.12	2.90	
Acceptance	Males	14.17	2.29	0.109
	Females	14.12	2.37	
Focus on and venting of emotions	Males	7.33	2.95	-5.677**
	Females	10.30	3.46	
Denial	Males	5.09	2.08	-0.368
	Females	5.21	1.84	
Mental disengagement	Males	6.58	2.18	-1.007
	Females	6.93	2.12	
Behavioural disengagement	Males	5.51	1.96	0.411
	Females	5.39	1.72	
Use of alcohol and drugs	Males	5.00	2.12	0.040
	Females	4.99	2.18	
Humour	Males	6.87	3.17	0.241
	Females	6.75	2.99	

Table 3: Parents in main study (males=78, females=72) *p < .05. **p < .01

seeking instrumental social support; seeking emotional social support; suppression of competing activities; turning to religion; and focus on and venting of emotions (see Table 3). In all these areas mothers scored higher than fathers. No other significant differences were found between the two groups.

In the sample of parents with young children significant differences were found in seeking instrumental social support; seeking emotional social support; competing activity and focus on and venting of emotions (see Table 4). Again females recorded higher scores than males. No other significant differences were found between the mothers and fathers.

Discussion

The hypothesis was that gender differences exist in coping strategies in the areas as defined by the sub-sections of Carver's COPE inventory. Additionally it was hypothesised that gender differences would also exist in parents of younger children with Down syndrome. In the main study significant results were found with mothers scoring higher than fathers in the following areas: planning, seeking instrumental social support, seeking emotional social support, suppression of competing activities, turning to religion, and focus on and venting of emotions. In the group of parents with young children significant differences were found in seeking instrumental social support, seeking emotional social support, suppression of competing activity, and focus on and venting of emotions. Again females recorded higher scores than males. Therefore, both hypotheses were confirmed with differences being found in coping strategies used by mothers and fathers, and a slightly different pattern of differences being found in the group of parents of young children compared to the whole sample.

The use of active coping strategies involves taking actions and exerting efforts to remove or circumvent the stressor, and no significant differences were found between mothers and fathers in the main or young children samples on this factor. It is interesting to note that the result approached significance (5% level) for the parents in the main study, but not in the young children study. A possible reason for this and the non-significant result overall could be that the questions within the trait were inappropriate in this situation. For example item number 25 states "I take additional action to get rid of the problem". Even if parents felt this way they may be unlikely to admit it even to themselves.

The next sub-scale was planning one's active coping efforts. In the main study females scored significantly higher than males. This could suggest that fathers are not planning or doing less planning but this does not mean they have not got an adequate coping mechanism. The non-significant result and lower score for females in the young children study might be due to possible shock and confusion for both parents in the time after the birth.

The next three items produced some of the most consistently significant results throughout the study. In the main study mothers scored higher than fathers on: seeking of instrumental support, seeking of emotional support, and suppression of competing activities. Whilst mothers in the young children study scored higher on seeking of instrumental and emotional support, and suppression of competing activities This could be looked at in one of two ways. Mothers actively seek support and focus on the problem

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whilst fathers still have not come to terms with it, do not want to think about it and are avoiding the issue. Or mothers seek high levels of support because they feel vulnerable whereas fathers are comfortable in their role as provider of support rather than support seeker. Pleck (1981) would suggest the former is the case. However, results from sections of Carver's inventory concerning denial and mental or behavioural disengagement do not support this.

COPE Scales	Gender	Mean scores	Standard deviation	t
Active coping	Males	11.51	2.70	-0.166
	Females	11.62	2.91	
Planning	Males	11.62	2.62	-0.686
	Females	12.08	3.12	
Seeking instrumental social support	Males	10.08	2.79	-3.036**
	Females	12.16	3.09	
Seeking emotional social support	Males	8.30	2.48	-4.700**
	Females	11.62	3.51	
Suppression of competing activities	Males	8.73	2.46	-2.044*
	Females	10.05	3.08	
Turning to religion	Males	6.03	3.25	-1.499
	Females	7.35	4.28	
Positive reinterpretation and growth	Males	13.05	2.50	-0.043
	Females	13.08	2.91	
Restraint coping	Males	9.16	2.49	0.926
	Females	8.59	2.77	
Acceptance	Males	14.19	2.25	0.737
	Females	13.76	2.77	
Focus on and venting of emotions	Males	7.62	3.29	-3.709**
	Females	10.62	3.65	
Denial	Males	5.22	1.96	-0.925
	Females	5.67	2.30	
Mental disengagement	Males	6.70	2.28	-0.446
	Females	6.94	2.40	
Behavioural disengagement	Males	5.40	1.57	0.878
	Females	5.08	1.60	
Use of alcohol and drugs	Males	5.16	2.39	0.000
	Females	5.16	2.49	
Humour	Males	6.78	2.79	0.725
	Females	6.30	2.98	

Table 4: Parents with young children (males=37, females=37) *p < .05. **p < .01

The increased tendency for mothers to turn to religion was not predicted, although it was only found in the main study. This could be taken as another form of social support seeking. There were no differences between males and females for positive reinterpretation and growth, and for acceptance and restraint coping. High mean scores in acceptance and personal growth give cause for optimism among younger parents and it appears that mothers and fathers held generally positive outlooks.

The second most highly significant result, after seeking emotional support, was focusing on and venting of emotions, where females consistently scored higher. Pleck's GRS would suggest that this is to the detriment of fathers. However, mean scores for denial, mental disengagement and behavioural disengagement were consistently low for both mothers and fathers. Although it could be the case that individuals who had these feelings were less inclined to complete a questionnaire.

Equally low scores for use of humour failed to support previous studies (e.g. Plancheral & Bolognini, 1995), however, this may reflect those studies focusing on an individual's perception of past events, whereas coping with a child with special needs is an ongoing situation.

Support for the concept of alcohol as a gender relating coping mechanism was also not found. Pleck's theory does include a concept of historical change and this result may reflect a change in drinking habits of males or females. It is worth noting that many participants scored minimum marks and it may be that gender differences disappear for all but a minority in family situations when males have more responsibilities and perhaps less free time and money.

From the results it can be seen that males score lower marks on most of the traits and all the significant scales. This could be a similar situation to Pollack's (1995) study. Both males and females have the same physiological reactions to a baby crying, however, only females are encouraged to act upon these reactions. In the same way fathers could be making responses based on what they feel is expected of them. This has serious implications for questionnaires attempting to measure gender differences. Both parents may seek emotional support but the father may not recognise it as social support or admit it to himself.

A number of criticisms of the study can be made. Firstly the sample only included subscribers to two magazines which have a circulation of approximately 6,000 in a country with a Down syndrome population of 30,000. It may be the case that there is an over representation of a particular social or economic group. Also this may reflect different levels of education or interest in the topic. Additionally the advertisement mentioned the need to study coping strategies and the frustration and misunderstandings caused by gender differences. This could have meant those with coping problems or couples experiencing misunderstandings may have been more (or less) likely to complete a questionnaire.

It could be argued that the high scores for females in the traits that were significantly higher than males reflect a small proportion of women who are lacking in instrumental

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or social support. These individuals might be more likely to subscribe to magazines and respond to advertisements such as the one in this study. Thus these gender differences could reflect the coping styles of a minority of women in the same way that alcohol is a problem for a minority of men. Although it is interesting that in this case no differences were found for alcohol or drug use. In all the traits where significant results were found female scores had the greater standard deviation, thus greater gender specific variability was observed.

A variety of other variables could also have influenced the findings. Aside from social and economic status, which can effect social support scores, geographical location is also a factor, and a number of initial responses came from countries other than the UK. Although it appears no questionnaires were returned from these (from the post-marks) no record was kept to match the questionnaires sent out with those received back aside from the names and addresses. Some individuals did not put their name on the returned questionnaire and so it was impossible to know where the respondent came from. Certain areas of this country have better resources both for education and health. Portage, a home visitor service for children with special needs, is only provided by certain local authorities. The absence of these local support agencies may affect females more than males because of different work patterns and child care responsibilities. The different scores for emotional and instrumental support may reflect the perceived needs of the person with the most responsibility for the child's care, in this case women, rather than inherent gender differences. However, it is impossible to know for sure who is the main caregiver in the sample. Additionally the inclusion of single parents and adoptive parents may have altered the data. For the single parents especially the absence of a partner may affect social and emotional support levels. Despite this there is no way of knowing whether the couples who responded are separated, divorced or living together. All these factors are relevant and the level of marital satisfaction could be an important factor in coping strategies. A crucial variable in coping strategies is age. It would be surprising if the 81 year old man with a 39 year old son has the same experiences as the young couple with a 3 month old daughter.

Thus the following suggestions are made for future research. Parents of similar ages with young children and living in the same area would be a more suitable sample group. This would match resources available from local authorities. Members of a local Portage group would be ideal as they provide a high level of support to parents and only work with children under 5 years old. Additionally a control group of parents with 'typically developing' children would measure whether gender differences were a function of high stress events or a general social phenomenon. Lastly cross cultural studies might add to social or biological explanations of gender differences in coping strategies.

Conclusions

The main findings of this study are that gender differences were found in the coping strategies of parents of children with Down syndrome in the following areas: Seeking instrumental social support; seeking emotional social support; the suppression of competing activities; and the focus on and venting of emotions. These findings are in line with Pleck's Gender Role Strain paradigm. However, differences were not found in other areas. The main problem for Pleck's theory is that it proposes male trauma and dysfunction. This appears not to be the case in this situation. Males demonstrated no more negative traits, such as denial, than women. It is noteworthy that both mothers and fathers recorded high levels of acceptance in both studies. This is supported by Herbert (1995) strongly suggesting that many men are very comfortable with their role.

The study presents implications for Pleck's theory and social constructionism in general. Firstly the figure of the cold unemotional male who is suffering trauma and psychological stress due to his socialisation into the male role seems to be largely false in this case. Secondly the possibility that they really are traumatised and do not realise it, seriously throws into doubt the validity of questionnaires such as COPE, as well as giving a rather circular argument to the theory. Additionally the social constructionist view appears to label certain behaviours as undesirable, such as non-expressiveness and being unemotional. This process of valuing certain behaviours above others is itself a social construction.

There does appear to be support for stereotypical gender differences in coping strategies. Mothers seeking and expressing emotions with fathers responding stoically playing the supporting role. The question arises what if anything should we do about this. Many theorists, Pleck included, have suggested that men need to change in some way to be psychologically healthy. However, the evidence suggests that fathers are comfortable playing that role moreover mothers themselves express the need for a strong supportive partner (Herbert, 1995). It seems to be taken for granted that females have the right to express emotions whilst fathers of children with Down syndrome appear to be caught between two extremes. On one side it is assumed by society (in the form of doctors, nurses and health visitors) that fathers' emotions are irrelevant and that they can and should cope with any situation. At the same time changes in society expect men to be more sensitive and caring. Gilmore (1990) has cited cross-cultural studies demonstrating that many aspects of the 'traditional' male role have positive and beneficial aspects for society. It should be recognised that there is great variety among males and within the same man across his lifetime. A greater freedom for fathers to respond in the way they feel most comfortable, whether by reacting emotionally or not, without pressure or condemnation would benefit fathers themselves and those around them.

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