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Abstract

This study examined the relationship between levels of group cohesion, defined as whole group relationships, and between-session therapeutic homework adherence in a multi-family group therapy (MFGT) for people with schizophrenia. Participants from 18 consenting families attending MFGT groups completed weekly homework adherence ratings, group cohesion and spontaneous between-session activity measures. Levels of group cohesion at each session were compared with measures of scheduled and spontaneous homework adherence reported at the next session. It was hypothesised that higher levels of group cohesion would be related to homework adherence and other spontaneous between-session therapeutic activity completed by group members. Results show higher levels of group cohesion were associated with higher rates of spontaneous between-session therapeutic activity. However, contrary to expectations no significant relationship between cohesion and scheduled homework completion was found. The implications of the findings for group processes and homework adherence are discussed.

Keywords

schizophrenia, group, therapy, family, multi, adherence, homework, cohesion

Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

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Group Cohesion and Homework Adherence in Multi-Family Group Therapy for Schizophrenia

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This study examined the relationship between levels of group cohesion, defined as whole group relationships, and between-session therapeutic homework adherence in a multi-family group therapy (MFGT) for people with schizophrenia. Participants from 18 consenting families attending MFGT groups completed weekly homework adherence ratings, group cohesion and spontaneous between-session activity measures. Levels of group cohesion at each session were compared with measures of scheduled and spontaneous homework adherence reported at the next session. It was hypothesised that higher levels of group cohesion would be related to homework adherence and other spontaneous between-session therapeutic activity completed by group members. Results show higher levels of group cohesion were associated with higher rates of spontaneous between-session therapeutic activity. However, contrary to expectations no significant relationship between cohesion and scheduled homework completion was found. The implications of the findings for group processes and homework adherence are discussed.

Keywords: group cohesion, homework, multi-family groups, schizophrenia

Introduction

The incorporation of family group therapy into therapeutic interventions for people with schizophrenia is suggested to be an integral component in enhancing positive treatment outcomes and reducing associated family burden (Dixon et al., 2001; Pilling et al., 2002; Rea et al., 2003). Multi-family group therapy (MFGT) was developed by Laqueur in the 1960s and later adopted by McFarlane and colleagues in the 1980s (Bishop, Clilvord, Cooklin & Hunt, 2002). MFGT is facilitated by up to two clinicians and involves around six families and patients attending groups together to focus on problem-solving strategies (Dyck, Hendryx, Short, Voss & McFarlane,

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2002). The sessions are formatted so that each week one family presents a current difficulty (e.g., medication adherence or low motivation) to the group and the group collectively focuses on formulating strategies to overcome or minimise the difficulty. The family of focus is provided with action plans and assigned set homework to assist in learning how to apply strategies and achieve goals. Each family has equal opportunity to present their individual difficulties throughout the course of the therapy.

Strong evidence supports MFGT in reducing care-giver burden, and assisting in increasing social support and coping skills (Asen & Schuff, 2006; Dyck et al., 2000). It has been suggested that it provides benefits over single family interventions in achieving lower relapse rates and decreased symptomology (for a review see McFarlane et al., 1995). However, a meta-analysis of family interventions concluded there was no significant benefit of multiple family group designs over single family treatments (Pilling et al., 2002). Despite questions about the relative efficacy of MFGT when compared to single family therapies, there is ample empirical evidence that offers support to MFGT being beneficial for an array of mental health problems including treatment of sexually abusive youth, family and child problems, alcohol and substance abuse and with consumers who have dual diagnoses of psychiatric disorders and substance abuse (Kymissis et al., 1995; Maloney, 1981; for a review see Nahum & Brewer, 2004).

The primary components of MFGT include the specific problem-solving skills taught in session, the generalisation of such skills in the open environment through completion of related assigned homework tasks, and the extended support provided by the group (Asen & Schuff, 2006; Dyck et al., 2000; McFarlane et al., 1995). Each of these components has evidence of effectiveness from a range of research. For example, homework is a well established critical component of CBT and other therapies (Kazantzis, Deane, Ronan & L'Abate, 2005; Kazantzis & L'Abate, 2007) and is empirically supported with studies showing homework adherence is associated with positive treatment outcomes (Kazantzis, Deane & Ronan, 2000; Kazantzis, Whittington & Dattilio, 2010).

Likewise, cohesiveness between members in different forms of group therapy is theorised to be an important component with various impacts on the effectiveness of group therapy (Yalom, 1995). Group cohesion has been referred to as the relationship between all the members and therapists of the group (Crowe & Grenyer, 2008). This concept is different to the dyadic therapist and patient relationship, which is more commonly referred to as the working alliance (Crowe & Grenyer, 2008). Support for group cohesion has been established empirically over two decades of research (e.g., Budman et al., 1989; Greene, 1989; Taube-Schiff, Suvak, Antony, Bieling & McCabe, 2007; van Andel, Erdman, Karsdorp, Appels & Trijsburg, 2003). However, there has been minimal research that assesses the role of group cohesion and homework in family group treatments, including MFGT. There is also a notable absence of empirical evidence available in relation to the effects of group cohesion in MFGT despite theory suggesting this is an important therapeutic component of the approach (McFarlane, 2002).

Asen and Schuff (2006) describe a model of MFGT implemented for families and those experiencing psychosis. They noted the members of their program bonded together during sessions and formed a collaborative and cohesive relationship throughout

the course of the sessions. Further to this, examples were provided of family members who generalised strategies discussed in the groups and incorporated them into managing their family member's psychosis. This type of spontaneous in-between-session activity performed by group participants is particularly relevant in terms of the additional benefits attendance at a group-based therapy may provide for patients and their families. There are likely to be multiple processes that facilitate this vicarious learning and spontaneous problem solving. This may include how systematic and structured the problem solving process is in session, as well as the capacity of a particular group to effectively use these strategies during group sessions. However, it is also likely that the process of sharing, openness, and group cohesion also plays a role.

No prior research has sought to measure the extent to which participants involved in a MFGT engage in spontaneous between-session activities. These spontaneous activities are not therapeutic 'homework' in the usual sense, in that they are not explicitly negotiated and set during the group session. As noted, homework is 'set' explicitly for at least one family during MFGT sessions. This usually follows the group focusing on problem solving for a particular issue this family raises in the session. Thus, this group is set 'homework' to try to implement the strategies discussed during the group session. Other families do not usually have explicit homework set during the session, but there is a general expectation that they will continue to implement the broad problem solving skills demonstrated in the session in their own lives. The extent to which this occurs has not yet been systematically described.

There has been a steady amount of research investigating working alliance, or direct relationship between therapist and client and outcomes of therapy (Martin, Garske & Davis, 2000). In contrast, there is a limited amount of research investigating relationships between group cohesion and homework adherence with these producing inconsistent findings. For example, one study investigated two variables, working alliance and group cohesion, in respect to outcome in a group of domestic violence offenders (Taft et al., 2003). Results show therapist ratings of working alliance (i.e., the relationship between therapist and client), predicted homework compliance. In addition, significant intercorrelations were also found between working alliance as rated by both therapist and clients and group cohesion as rated by the client group. Furthermore, there was a suggestion that homework compliance mediated the relationship between working alliance ratings and psychological abuse. Greater group cohesion predicted lower physical and psychological abuse at follow up (Taft et al., 2003). The results suggest a potential link between the constructs of homework adherence and group cohesion. In contrast, a study of CBT for social phobia found no significant relationship between working alliance and treatment outcome, group cohesion and outcome, or homework compliance and outcome at any stage of treatment (Woody & Adessky, 2002).

Both of these studies used a single measure of homework adherence and in both cases this was a rating provided by the clinician running the group. This means that the measures were directly related to the perspective of the clinician, and participants' estimation of the level of their own adherence to set homework was not obtained. Furthermore, the level of spontaneous between-session activity was not measured at all. It has been argued that wherever possible multiple measures of homework should be used (Kazantzis, Deane & Ronan, 2004) along with independent between-session

activity to ensure the full extent of therapeutic activity between-sessions is captured (Woody & Adessky, 2002). There has been no prior research assessing homework adherence from multiple family member perspectives (e.g., parent, identified patient) and from the clinician's perspective.

The aim of this study is to investigate the perception of homework adherence of both family members (identified client and family) and clinicians. Further to this it will explore the relationship between group cohesion and homework adherence and group cohesion and spontaneous between-session therapeutic activity. Given the lack of prior research related to homework adherence in family therapy, the study will first explore the relationship between family members' and clinicians' ratings of homework adherence. It is hypothesised that higher levels of group cohesion will be associated with higher levels of assigned homework adherence and higher rates of spontaneous between-session therapeutic activities.

Method

Participants

Participants were 43 consenting individuals attending one of three multiple family group therapy programs. These individuals comprised of 18 different families living with a family member who has schizophrenia. Of these participants, 39.5% were mothers of patients, 35.5% were patients diagnosed with schizophrenia, 21% were fathers of patients and 4% were other relatives of patients (e.g., sibling, grandparent). Each of the three groups had participants from six families; two of the groups contained a total of 15 participants and the other group contained 13 participants. Fifty per cent of patients were aged between 18 and 30 years, 29% between 30 and 40 years and 21% between 40 and 50 years old. Twenty-three per cent of family members were aged between 40 and 50 years old, 38% were aged between 50 and 60 years, and 39% were over 60 years old.

Two clinicians facilitated each MFGT session. On average a total of 16 sessions were conducted for the groups and these took place once a fortnight. Signed consent was obtained from each participant. One participant (patient) failed to return response sheets and she was therefore excluded from the sample.

Measures

Homework Rating Scale (HRS; Kazantzis, Deane & Ronan, 2004). This measure comprises of 12 questions that are designed to measure various characteristics of the quantity and quality of homework adherence found to be empirically and theoretically relevant in respect to the client, the therapist and the task itself (Kazantzis et al., 2004). Client factors include identifying the impact of any practical obstacles (Item 4), their understanding or comprehension of the task (Item 5), the rationale behind the task (Item 6), their participation in designing the task (Item 7) and the level of enjoyment they experienced undertaking the task (Item 10). Two items are included to assess the impact therapist factors may have on the completion of homework and these cover specificity of the task (Item 8) and the perceived match between the task set and the goals of treatment (Item 9).

Finally the task characteristics are assessed in relation to degree of difficulty (Item 3), how much completing the task assisted with overcoming the difficulty (Item 11) and whether completing the task has assisted in the clients' progression in therapy (Item 12). Each item used a 5-point response scale ranging from 0 = Not at all to 4 = Extremely.

Assignment Compliance Rating Scale (ACRS; Primakoff, Epstein & Covi, 1986).

A global rating of homework adherence is obtained from this single item measure where clinicians choose from six options in relation to homework completion ranging from 1 = The client did not attempt the assignment, to 6 = The client did more of the assignment than was requested.

Group cohesion was measured using items obtained from the Group Climate Questionnaire (GCQ, Mackenzie, 1983) and the Californian Psychotherapy Alliance Scale (CALPAS-G, Gaston & Marmar, 1994). The GCQ is one of the most frequently used group process tools (Johnson et al., 2006). The GCQ is a self-report measure that gauges separate group members' opinions of the group's therapeutic atmosphere and consists of three subscales; Engagement, Conflict and Avoidance. Only the Engagement scale was used in the present study in order to assess a range of perceptions surrounding group cohesion and affiliation (Johnson et al., 2006).

The Engagement scale comprises five items where participants rate statements about the group as a whole on a 6-point scale (0 = not at all, to 6 = extremely) where higher scores equal greater cohesion. Example items are, '*The members liked and cared about each other*' and '*The members felt what was happening was important and there was a sense of participation*'. The GCQ has been found to have strong validity and reliability and has been used to measure cohesion previously (Burlingame, Fuhriman & Johnson, 2001; Constantini et al., 2002; Johnson et al., 2006; Kivlighan & Goldfine, 1991). This study produced a coefficient alpha for the engagement scale of 0.80 which is comparable of those found in previous studies (e.g., Kivlighan & Goldfine, 1991, 0.94; Johnson et al, 2006, 0.75).

The other group cohesion measure was the Working Strategy Consensus items on the CALPAS (Gaston & Marmar, 1994). This is made up of three items where participants are asked to rate their opinions on the experiences of group psychotherapy, (e.g., '*Did you feel that you were working together with the group members, that you were joined in a struggle to overcome your problems?*'). Each item has a 6-point response scale, (0 = not at all to 6 = very much so). There is considerable support for the validity and the use of this scale in assessing group cohesion and working alliance (Fenton, Cecero, Nich, Frankforter & Carrol, 2001; Gaston & Marmar, 1994; Safran & Wallner, 1991). In this study the coefficient alpha for this scale was calculated at 0.87.

Between-Session Activity Measure (Kazantzis, 2000).

This measure is an adaptation of a similar measure developed by Kazantzis (2000) when investigating the role of systematic administration of homework on treatment outcomes. It was designed to identify any spontaneous between-session activities completed that were not specifically set by the therapist as a formal part of therapy. Three of the five items were originally adapted from three activity orientated items from the Intersession Experiences Questionnaire (IEG: Orlinsky, Tarragona, Ebstein & Howard, 1989) which was designed to identify any pertinent thoughts and activities

related to therapy occurring between sessions. Wording for the five items was modified slightly to reflect the context of the multi-family group therapy program (e.g., *Did you apply techniques or ideas you learned in therapy*' to *Did you apply any techniques or ideas you learned in Multiple Family groups?*'). Each item is rated on a 5-point Likert-type scale ranging from 0 = *Not at all* to 4 = *A lot*.

Procedure

Attendance at Multi-Family Group Therapy involved a two-hour meeting once per fortnight. The meetings adopted a problem solving format where in each session one family had a turn to present a current difficulty or concern to the group who then assisted in discussing and generating ideas for solutions using a structured problem solving process. Homework was assigned to the family of focus for the week to help them practice the problem solving approach between sessions and a structured written homework sheet was completed to facilitate the family's completion of the set task/s.

The members of the family of focus completed homework adherence ratings at the beginning of the next scheduled meeting (i.e., the following session). The clinician also completed a homework adherence rating for that family at that time. All family and patient participants present at each meeting completed the group cohesion questionnaire at the end of each meeting. Those family members who were not set homework also completed the spontaneous between-session activity measure in respect of the time period since the previous meeting.

Results

First, the various ratings of homework were assessed to establish the limits of validity for the various measures of adherence, but in particular the Homework Rating Scale (HRS). Given prior homework research has established that homework adherence should be assessed with the use of both quantity and quality items, these two components were the focus of analyses. Due to the relatively small size of our data set and in the absence of the data meeting assumptions of normality, a series of Spearman's (nonparametric) correlations was conducted. Initial analyses included the calculation of correlations between items 1 and 2 (quality and quantity) on the HRS in relation to all other items on the HRS (see Table 1). Before calculating these correlations items 3 and 4, difficulty and obstacles, were reversed scored.

A total of 62 ratings were obtained from 27 different family members with each providing up to six ratings. Specifically, seven people completed one rating, 13 people completed two ratings, three people completed three ratings, one person completed four ratings, two people completed five ratings and one person completed six ratings. Results of correlations performed using independent ratings (i.e., only one rating from each participant) were not substantially different from those using the whole data set. Table 1 shows significant relationships between both measures of homework adherence and difficulty, collaboration, and mastery. In addition, significant relationships were found at the 0.05 level between quantity and progress and at the 0.01 level between quality and progress.

TABLE 1

Spearman's (Nonparametric) Correlations Between Family Ratings of Homework Adherence (Quality & Quantity) and Other Items on Homework Rating Sheet (HRS) (n = 62)

Homework Rating Sheet Descriptor	Homework Adherence (r)	
	Quantity	Quality
Difficulty	.46**	.34**
Obstacles	-.09	-.06
Comprehension	.19	.27*
Rationale	.06	.09
Collaboration	.34**	.39**
Specificity	.31**	.15
Match with Therapy Goals	.13	.18
Pleasure	.09	.05
Mastery	.40**	.42**
Progress	.29*	.40**

* p < 0.05 level (1-tailed).

** p < 0.01 level (1-tailed).

Clinician, Family and Patient Ratings of Homework Adherence

Clinicians' ratings of homework adherence were then compared with patients' and other family ratings to investigate the extent of similarity across group members including clinicians. Family ratings included all cases where there was a homework rating completed by a family member on any given week and a corresponding clinician's rating (N = 56). In 84.6% of these cases more than one family member provided a homework rating in respect to a particular week and homework task.

Table 2 shows the relationships between clinician rated homework adherence and family, patient and mother homework adherence ratings, respectively. Only nine HRS forms were completed by fathers (three fathers completed forms twice and three fathers completed forms once). Given the small number of ratings by fathers separate analysis of their data was not possible.

A significant correlation was found for quantity when clinician ratings were compared against family ratings. This indicates that family ratings of higher homework adherence related to clinicians reporting increased quantities of homework completion. The magnitude and direction of correlations were similar for patient and mothers' comparisons with therapist ratings, but these did not reach statistical significance, most likely due to small sample sizes.

Group Cohesion and Assigned Homework Adherence

In order to test the hypothesis that group cohesion would be related to assigned homework adherence a series of correlations were conducted between the HRS items and cohesion measures. It was expected that group cohesion would lead to better homework adherence, consequently the group cohesion measures completed by

TABLE 2

Spearman's (Nonparametric) Correlations Between Clinicians Ratings of Homework Adherence and Family, Patient, and Mother Ratings

Homework Rating Sheet Descriptors	Families ^a n = 56	Patients only n = 21	Mothers only n = 26
Quantity	.27*	.41	.30
Quality	.21	.28	.28

Note. ^a Families = mean ratings of patient, mother and father where more than one rating was available.

* p < 0.05 level (1-tailed).

TABLE 3

Correlations Between Homework Rating Sheets Items (1 to 12) and Group Cohesion (Engagement and Working Strategy) Means (n = 41)

Homework Rating Scale Descriptors	Participants a	
	Engagement	Working Strategy
Quantity	-.14	-.11
Quality	-.07	.10
Difficulty	.23	.19
Obstacles	.08	.17
Comprehension	.03	.04
Rationale	.27*	.41**
Collaboration	.35*	.40**
Specificity	-.08	-.03
Therapy Goals	.21	.40**
Pleasure	.13	.01
Mastery	.09	.36**
Progress	-.04	.05

Note. a Participants = Participants who completed a Group Cohesion measure at the end of a session and a corresponding HRS rating at the beginning of the next session.

* p < 0.05 level (1-tailed).

** p < 0.01 level (1-tailed).

participants in the session *before* the homework ratings were used in the correlations. Table 3 shows the relationship between the amount of assigned homework completed and the level of group cohesion.

No significant relationships were found between quantity and quality of homework adherence and group cohesion. However, in order to explore the relationship between homework and cohesion further, correlations were also conducted with the other HRS items. Working strategy was significantly related to collaboration, rationale, match with therapy goals and mastery. Furthermore, engagement was significantly related to

TABLE 4

Standard Regression of Between-Session Activities (BSA) and Group Cohesion Variables

Variables	BSA (dv)	Engagement	Working Strategy	B	β
Engagement	.40**			.21	.20
Working Strategy	.37**	.74**		.36	.22*
Means	2.0	4.8	5.03	Intercept = $-.60$	
Standard Deviations	.98	.91	.97	Adjusted $R^2 = .15$	
				$R^2 = .14$	
				$R = .39$	

** $p < 0.01$ level.* $p < 0.05$ level.

rationale and collaboration. No significant relationships were found between group cohesion and clinicians' ratings of homework adherence.

Group Cohesion and Spontaneous Between-session Activity

The mean between-session activity score was used to compare the relationship between group cohesion and spontaneous between-session activity and significant correlations were found between these variables. This indicates that group cohesion was related to increased reports of spontaneously completing extra activities in between sessions. Measures of group cohesion from the session *before* the ratings of spontaneous in-between session activity were used in the analyses. The significant correlations are shown in Table 4.

To further investigate the relationship between group cohesion and performance of spontaneous between-session activities a standard multiple regression was performed with the mean of between-session activity scores as the dependant variable and the mean scores of engagement and working strategy as independent variables (see Table 4). Univariate and multivariate normality were assessed and no singularity or multicollinearity issues were identified. The regression was found to be significantly different from zero, $F(2,170) = 15.41, p < .001$, with the adjusted $R^2 = .14$ indicating that 14% of the variability in participants completing spontaneous between-session activities was predicted by the level of group cohesion. However, only working strategy was a significant predictor, ($B = .22, t = 2.12, p = .04$), with engagement approaching significance ($B = .20, t = 1.91, p = .06$). This result indicates that there was a significantly stronger relationship between working strategy and the completion of between-session activities when compared with the relationship between engagement and between-session activities.

Because participants in this study belonged within separate family groups, independence of observations was indeterminate. Therefore, it was important to assess the

extent to which the relationship between cohesion and between-session activities varied as a function of family group. Multi-level modeling was conducted to investigate the influence of family. An initial analysis showed that between-session activities did not vary across family group, $B = 6.65$, $Wald Z = 1.76$, $p = .08$. However, the intraclass correlation of 0.25 shows that 25% of variability in activities was substantially influenced by family group, and consequently should be included in further modeling. A subsequent analysis was conducted in which the explanatory variables were included in the presence of family group. The analysis yielded a significant result in respect to engagement and spontaneous between-session activities, $B = .26$, $t = 2.5$, $p = .02$, and a non-significant result in respect to working strategy and spontaneous between-session activities, $B = .23$, $t = 1.4$, $p = .17$.

These results show that when taking into account that participants belonged to different family groups, the engagement component of group cohesion was identified as a significant predictor of completion of between-session activities, whereas working strategy did not contribute at a significant level.

Discussion

This study investigated the relationship between various components of homework completion including quantity and quality of homework adherence amongst family members. Family homework adherence ratings were also compared with clinicians' ratings of homework adherence to determine the consistency between different raters. The study sought to ascertain whether there was a relationship between the level of group cohesion experienced by group members and the level of set homework and the amount of spontaneous between-session therapeutic activity. Specifically, it was hypothesised that higher levels of group cohesion would be associated with higher levels of assigned homework adherence and higher levels of spontaneous between-session activities.

Homework Adherence

Homework adherence was measured by how much (quantity) and how well (quality) homework was completed. These ratings were significantly related to difficulty, collaboration, comprehension, specificity, mastery and progress items on the HRS. This suggests that more homework is completed and it is of better quality when people feel they were involved in collaborative planning of homework tasks. Likewise, participants are likely to complete more homework when they perceive the homework tasks assist in helping them increase control over their problems and help them progress in therapy. Homework adherence was also of higher quality when the task was better understood and the amount of homework completion was related to the specificity of the tasks. Lower homework adherence was reported when there were higher degrees of difficulty reported.

These results were in the expected direction and provide preliminary validity data for the components of the HRS. However, these relationships may be somewhat inflated due to ratings being made by the same participants. In order to further clarify the relationship reliability (consistency) and validity of homework adherence ratings comparisons between different raters were conducted.

Clinician, Patient and Family Ratings of Homework Adherence

Clinicians' ratings of homework adherence were correlated with other participants' ratings (i.e., families, patients only and mothers only). Clinician and family ratings of the quantity of homework completion were significantly positively correlated. Although in the expected direction (and of similar magnitude), separate correlations between clinicians ratings with patients' and mothers' ratings did not reach statistical significance. This was likely due to the relatively small sample size.

Together these findings indicate that self report ratings of homework adherence have some degree of reliability and validity in the context of family therapy. However, while there is some consistency across raters there is still sufficient variability to suggest the need to consider multiple perspectives in assessing homework adherence.

Group Cohesion, Homework Adherence and Spontaneous Between-session Activity

This study sought to examine the effect group cohesion had on the completion of assigned homework and spontaneous between-session activities. The hypothesis that higher group cohesion would be related to increased adherence to assigned homework tasks was not supported. No significant relationships were found between group cohesion and quality and quantity of assigned homework adherence. Exploration of the relationship between group cohesion and other components of homework revealed that higher group cohesion was related to increased perceptions of collaboration, a better understanding of the rationale behind the set homework tasks, higher perceptions that the homework tasks matched with therapy goals and reports of enhanced ability to master the homework tasks. These relationships may suggest a more indirect relationship at work between group cohesion and homework adherence. It is possible that these other homework related components mediate or moderate the relationship between cohesion and homework adherence.

Higher group cohesion was significantly related to higher completion of spontaneous between-session activity. It was found that this relationship was not affected by family unit, ruling out the potential influence of over-representation of data from specific family units. When family units were taken into consideration in our analysis, group cohesion continued to have a significant relationship with spontaneous between-session activity. When the influence of family unit was controlled using multilevel modeling it was the engagement component of cohesion that was most influential on between-session activity.

This suggests that whilst group cohesion remained a significant predictor of spontaneous between-session activity completion, the presence of different family units appeared to influence which of the group cohesion components was the most significant predictor of this relationship (i.e., working strategy or engagement).

A limiting factor in the study was that only one family was the focus of set homework at the end of each group therapy session. Thus, they were the only ones that completed a homework adherence measure at the beginning of the next session. In contrast, the measure of spontaneous between-session activities involved all of the remaining group members from the other five families. This meant that the data set used to calculate homework adherence was relatively small, particularly in comparison to the data set used for assessing spontaneous between-session activities. The smaller

sample size for the group cohesion and homework adherence comparisons may have contributed to the lack of effects found.

A second caution in considering the results was that some family members provided multiple data points for comparisons. Thus, those who provided more data may have had a greater influence on the results. However, this potential bias was assessed by replicating analyses with random samples involving independent ratings only. Partial control of this potential bias was also achieved by assessing the influence of family unit using multi-level modeling approaches.

Conclusions

Our results suggest that the more that group members experience cohesion, the greater the amount of spontaneous between-session activity they engage in. Moreover, because the design of our study was such that group cohesion measures were obtained directly after group sessions each week and the between-session activity measures were obtained at the beginning of the subsequent session, it is possible this may be a causal relationship. It remains for future research using experimental designs to test this possibility. The practice implications of these findings are that group processes that facilitate cohesion are likely to have flow-on benefits in terms of generalising skills observed or learned in-session to those in families' living environments.

Theoretically, these findings are consistent with the broad view that Multiple Family Group Therapy is effective not only because of the specific problem-solving components, but also as a result of the additional support that the extended group network provides (McFarlane, 2002). Finding that group cohesion relates to efforts outside of the sessions suggests one possible mechanism by which the 'support' component of the group work might relate to improved outcomes. Homework completion has been found to be related to more positive therapy outcomes (Kazantzis et al., 2000; 2010). However, this was not found in the present study and there is a need for more research to test this in the context of MFGT. It would be particularly advantageous to investigate the possibility that other significant components of homework may have a mediating or moderating role between adherence and treatment outcomes.

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