

Outcome Measure	Family Management Measure (FaMM)
Sensitivity to Change	Yes
Population	Paediatrics
Domain	Family Environment
Type of Measure	Parent-report
ICF-Code/s	e3-e4
Description	<p>The Family Management Measure (FaMM) was developed to measure how families manage caring for a child with a chronic condition/illness and the extent to which they incorporate condition management into everyday family life.</p> <p>The current version of the FaMM has 53 items with 45 items for all parents and eight additional items for partnered parents only. Items are scored from 1 to 5, meaning strongly disagree to strongly agree.</p> <p>There are five summated scales for all parents measuring the dimensions:</p> <ol style="list-style-type: none"> (1) Child's Daily Life. This 5-item scale addresses parents' perceptions of their child and his/her everyday life. (2) Condition Management Ability. This 12-item scale addresses parents' perceptions of the overall manageability of the child's condition, including knowing what needs to be done to take care of the condition and their ability competently to carry out the management of their child's condition. (3) Condition Management Effort. This 4-item scale addresses the time and work needed to manage the condition. The items in this scale come primarily from the Illness View dimension. (4) Family Life Difficulty. This 14-item scale addresses parents' perceptions of the extent to which having a child with a chronic condition makes family life difficult. The items in this scale come primarily from the Family Focus and Management Mindset dimensions. (5) View of Condition Impact. This 10-item scale addresses parents' perceptions of the seriousness of the condition and its implications for their child's and their family's future. In contrast to the Condition Management Ability and Family Life Difficulty scales, the focus of the View of Condition Impact scale is apprehension about the future. It incorporates items from the Future Expectations and Illness View dimensions that indicate the degree to which parents worry about their child's condition.
Properties	<p>PURPOSE</p> <p>The FaMM was developed to measure how families manage caring for a child with a chronic condition/illness and the extent to which they</p>

incorporate condition management into everyday family life. Data from the FaMM will contribute to clinicians' and researchers' ability to understand more fully family functioning in the context of childhood chronic conditions. By measuring key aspects of family management, the FaMM will lead to a more precise understanding of factors that support or impede optimal child and family functioning. It is anticipated that the FaMM will be used in conjunction with other measures of family functioning and processes, and that it will further the development and testing of interventions and the comprehensive assessment of families' efforts to manage chronic conditions.

DEVELOPMENT

The conceptual framework underlying the FaMM was the Family Management Style Framework (FMSF) (Knafl & Deatrick, 1990; 2003; Knafl, Breitmayer, Gallo, & Zoeller, 1996). The FMSF evolved through a series of qualitative studies and integrative reviews. The FMSF incorporates the views of individual family members to conceptualise overall family response to a health-related condition. The framework is comprised of three major components: Definition of the Situation, Management Behaviours, and Perceived Consequences. Each component is composed of conceptual dimensions that reflect more specific aspects of the component. The eight dimensions (Child Identity, Illness View, Management Mindset, Parental Mutuality, Parenting Philosophy, Management Approach, Family Focus, and Future Expectations) were derived both from our research and the literature (Knafl & Deatrick, 1990; 2003; Knafl et al. 1996). Although these dimensions are theoretically distinct, they would be expected to be associated with each other to some degree. The 2003 article by Knafl and Deatrick provides a detailed description of the conceptual dimensions of the FMSF.

The eight conceptual dimensions of the FMSF were used to generate an initial set of items for the FaMM. Further development efforts included review of items by experts in family nursing research as well as parents of children with varied chronic conditions (Knafl et al., 2007). Based on input from experts and parents, a 65 item preliminary version of the FaMM was developed. Final testing of the FaMM entailed telephone interviews with a sample of 579 parents from 417 families of children with a wide array of chronic conditions (Knafl et al., in press). Parents responded to the 65-item FaMM as well as to measures of family functioning (Family Assessment Device), child behavior (Eyberg Child Behavior Inventory), child functional status (Functional Status II), and social desirability (Marlowe-Crowne). Analyses included exploratory and confirmatory factor analysis, reliability assessment, and hypothesis testing to evaluate construct validity.

The current version of the FaMM has 53 items with 45 items for all parents and eight additional items for partnered parents only. Items are scored from 1 to 5, meaning strongly disagree to strongly agree. There are five summated scales for all parents measuring the dimensions of Child's Daily Life, Condition Management Ability, Condition Management Effort, Family Life Difficulty, and View of Condition Impact as well as a sixth scale only for partnered parents measuring the dimension of Parental Mutuality. Higher scores on three of the scales (Child's Daily Life, Condition Management Ability, Parental Mutuality) indicate greater ease in managing the child's condition. Higher scores on the other three scales (Condition Management Effort, Family Life Difficulty, View of Condition Impact) indicate greater difficulty in managing the condition.

SCALES FOR ALL PARENTS

Child's Daily Life. This 5-item scale addresses parents' perceptions of their child and his/her everyday life. Two items are positively scored; three are reverse coded. Higher values indicate a more normal life for the child despite the condition.

Condition Management Ability. This 12-item scale addresses parents' perceptions of the overall manageability of the child's condition, including knowing what needs to be done to take care of the condition and their ability competently to carry out the management of their child's condition. It incorporates items from the Parenting Philosophy and Management Mindset dimensions, as well as items from the Future Expectations dimension, indicating that the condition is viewed as manageable now and into the future. Eight items are positively scored; four are reverse coded. Higher values mean the condition is viewed as more readily manageable.

Condition Management Effort. This 4-item scale addresses the time and work needed to manage the condition. The items in this scale come primarily from the Illness View dimension. Three items are positively scored; one item is reverse coded. Higher values mean more effort is expended in managing the illness.

Family Life Difficulty. This 14-item scale addresses parents' perceptions of the extent to which having a child with a chronic condition makes family life difficult. The items in this scale come primarily from the Family Focus and Management Mindset dimensions. Eleven items are positively scored; three are reverse coded. The three reverse coded items indicate that the condition does not interfere with family life. Higher values indicate more difficulty managing the condition.

View of Condition Impact. This 10-item scale addresses parents' perceptions of the seriousness of the condition and its implications for their child's and their family's future. In contrast to the Condition Management Ability and Family Life Difficulty scales, the focus of the View

of Condition Impact scale is apprehension about the future. It incorporates items from the Future Expectations and Illness View dimensions that indicate the degree to which parents worry about their child's condition. Six items are positively scored; four items are reverse coded. Higher scores indicate greater concern in managing the condition.

SCALE FOR PARTNERED PARENTS ONLY

Parental Mutuality. This 8-item scale is used only with partnered parents and addresses perceptions of support, shared views, and satisfaction with how the partners work together to manage the child's condition. The items in the scale come primarily from the Parental Mutuality dimension. Five items are positively scored; three are reverse coded. Higher values indicate a more shared response and greater satisfaction with how the couple works together to manage the condition.

SCORING

Scoring Instructions for the FaMM

The FaMM questionnaire has two sections. The items from Section 1 are answered by all parents and are used to calculate five scales: Child's Daily Life, Condition Management Ability, Condition Management Effort, Family Life Difficulty, and View of Condition Impact. The items from Section 2 are answered only by parents who have adult partners in the household and are used to calculate a sixth scale: Parental Mutuality. Item numbers are given by the order in which they are listed on the FaMM questionnaire. Reverse coded items are indicated with an asterisk.

Calculation of Scale Scores and Scoring Template

1. Determine the number of items in a scale with valid responses (i.e., values of 1-5).
2. Compute a scale score from the valid responses as instructed in steps 3-7, **but only if at least seventy percent of the items for that scale have valid responses** (minimum numbers for the scales are provided below). If less than 70% of the items are answered, the scale cannot be computed.
3. Reverse code the negative item responses (indicated by asterisks) by subtracting those item responses from the value 6.
4. Sum the positive item responses and the reverse coded negative item responses.
5. Divide by the number of valid responses.
6. Multiply by the total number of items for the scale.
7. Round to the nearest integer.

Child's Daily Life Scale

This scale addresses parents' perception of the everyday life of the child. Higher values indicate more normal life for the child despite the condition.

- 1. Our child's everyday life is similar to that of other children his/her age.
- 10. Our child takes part in activities he/she wishes to despite the condition.
- 5. *Our child enjoys life less because of the condition.
- 16. *Our child is different from other children his/her age because of the condition.
- 20. *Our child's friendships are different because of the condition.

Total number of items = 5.

Minimum number of valid responses required to compute the scale score = 4.

Condition Management Ability Scale

This scale addresses parents' perception of their ability to manage their child's condition. Higher values indicate that the condition is viewed as more readily manageable.

- 4. In the future we expect our child to take care of the condition.
- 13. We have some definite ideas about how to help our child live with the condition.
- 14. Despite the condition, we expect our child to live away from home in the future.
- 15. We have enough money to manage our child's condition.
- 18. We are looking forward to a happy future for our child.
- 19. When something unexpected happens with our child's condition, we usually know how to handle it.
- 25. We feel we are doing a good job taking care of our child's condition.
- 41. We have goals in mind to help us manage our child's condition.
- 17. *It is difficult to know when our child's condition must come first in our family.
- 27. *It's often difficult to know if we need to be more protective of our child.
- 28. *We often feel unsure about what to do to take care of our child's condition
- 34. *We have not been able to develop a routine for taking care of our child's condition.

Total number of items = 12.

Minimum number of valid responses required to compute the scale score = 9.

Condition Management Effort Scale

This scale addresses parents' perception of the time and work required to

manage their child's condition. Higher values indicate more time and work expended in managing the illness

- 3. Our child's condition requires frequent visits to the clinic.
- 7. Our child's condition is like a roller coaster with lots of ups and downs.
- 35. It takes a lot of organization to manage our child's condition.
- 12. *Our child's condition doesn't take a great deal of time to manage.

Total number of items = 4.

Minimum number of valid responses required to compute the scale score = 3.

Family Life Difficulty Scale

This scale addresses parents' perception of the extent to which their child's condition makes their life difficult. Higher values indicate more difficulty in dealing with the condition.

- 2. Our child's condition gets in the way of family relationships.
- 6. Taking care of our child's condition is often overwhelming.
- 9. It is very hard for us to take care of our child's condition.
- 22. A condition like the one our child has makes family life very difficult.
- 31. It seems as if our child's condition controls our family life.
- 33. It is hard to get anyone else to help us with our child's condition.
- 36. We are sometimes undecided about how to balance the condition and family life.
- 39. Our child would do better in school if he/she didn't have the condition.
- 42. It is difficult to fit care of our child's condition into our usual family routine.
- 43. Dealing with our child's condition makes family life more difficult.
- 45. A condition like the one our child has makes it very difficult to lead a normal family life.
- 23. *Our child's condition rarely interferes with other family activities.
- 38. *Even though our child has the condition, we have a normal family life.
- 44. *We know when our child needs to be a child.

Total number of items = 14.

Minimum number of valid responses required to compute the scale score = 10.

Parental Mutuality Scale

This scale is calculated from the items in Section 2 of the FaMM questionnaire, answered only by parents with an adult partner living in the home. It addresses parents' satisfaction with how the couple works together to manage their child's condition and their perception of the degree to which they receive support from their partner and share views on the management of their child's condition. Higher values indicate that

the condition is viewed as more readily manageable.

46. We are a closer family because of how we deal with our child's condition.

48. I am pleased with how my partner and I work together to manage our child's condition.

50. My partner and I consult with each other before we make a decision about our child's care.

51. My partner and I have similar ideas about how we should be raising our child.

53. My partner and I support each other in taking care of our child's condition.

47. *My partner and I have different ideas about how serious our child's condition is.

49. *My partner and I argue about how to manage our child's condition.

52. *I am unhappy about the way my partner and I share the management of our child's condition.

Total number of items = 8.

Minimum number of valid responses required to compute the scale score = 6

View of Condition Impact Scale

This scale addresses parents' perception of the seriousness of the condition and its implications for the future. Higher values indicate a higher level of concern about the condition.

8. Our child's condition is the most important thing in our family.

11. Because of the condition, we worry about our child's future.

24. Our child's condition requires frequent hospital stays.

29. Our child's condition will be harder to take care of in the future.

30. We think about our child's condition all the time.

37. It is hard to know what to expect of our child's condition in the future.

21.*We expect to be devoting less time to our child's condition in the future.

26. *People with our child's condition have a normal length of life.

32. *Many conditions are more serious than our child's.

40. *We are confident that we can take care of our child's condition.

Total number of items = 10.

Minimum number of valid responses required to compute the scale score = 7.

PSYCHOMETRIC PROPERTIES

Reliability Assessment

Internal consistency reliability (ICR) for the scales, adjusted for inter-parental correlation, ranged from .72 to .90 for mothers and .73 to .91 for fathers (Knafl, G., et al., unpublished manuscript).

Scale	ICR for Mothers	ICR for Fathers	Inter-Parental Correlation (p-value)	
Child's Daily Life	.76	.79	.55 (<.01)	
Condition Management Ability	.72	.73	.33 (<.01)	
Condition Management Effort	.74	.78	.58 (<.01)	
Family Life Difficulty	.90	.91	.59 (<.01)	
Parental Mutuality	.79	.75	.44 (<.01)	
View of Condition Impact	.73	.77	.58 (<.01)	

Test-retest reliability was based on responses from 65 parents retested within 2-4 weeks and adjusted for inter-parental correlation. It ranged from .71 to .94.

Scale	Test-Retest Reliability
Child's Daily Life	.83
Condition Management Ability	.79
Condition Management Effort	.81
Family Life Difficulty	.94
Parental Mutuality	.71
View of Condition Impact	0.87

Validity Assessment

Construct validity was supported by significant correlations between each of the scales and each of the related measures of family functioning, child functional status, and child behavior, with directions of relationships as expected. Construct validity correlations were computed from responses for all participating parents accounting for inter-parental correlation within families. Family functioning was assessed by the General Functioning scale of the McMaster Family Assessment Device (FAD) (Epstein, Baldwin & Bishop, 1983), with higher scores indicating unhealthier levels of family functioning. The functional status of the child with the chronic condition was assessed by the Functional Status II instrument (FSM II) (Stein & Jessop, 1990), with higher scores indicating better functional status for children with chronic conditions. Child behavior was assessed by two related scales of the Eyberg Child Behavior Inventory (ECBI) (Eyberg & Pincus, 1999; Eyberg & Robinson, 1983), with higher scores on the Intensity scale indicating more problem behaviors and higher scores on the Problem scale indicating more behaviors viewed as a problem by parents. Thus, the ECBI takes into account both the presence of behaviors as well as the meaning parents attach to a specific behavior. As shown in the tables below, family functioning, child behavior, and child functional status were significantly associated with the FaMM scales in the hypothesized directions. The FAD and ECBI (higher scores indicative of worse functioning and behavior) were significantly negatively associated with the Child's Daily Life, Condition Management Ability, and Parental Mutuality scales and significantly positively associated with associated with the Condition Management Effort, Family Life Difficulty, and View of Condition Impact scales. On the other hand, the FSM II (higher scores indicative of better functioning) was significantly positively associated with higher scores on the Child's Daily Life, Condition Management Ability, and Parental Mutuality scales and significantly negatively associated with higher scores on the Condition Management Effort, Family Life Difficulty, and View of Condition Impact scales. The generally moderate strength of the correlations between the FaMM scales and the validation measures indicates that they are tapping related, though distinct aspects of family life in the context of a child's chronic condition.

Correlation of Scales with Established Measures					
	Family Functioning	Child Functional Status			
			Child's Daily Life	-.21	.39
Condition Management Ability	-.35	.32			
Condition Management Effort	.16	-.33			

	Family Life Difficulty	.38	-.45	
	Parental Mutuality	-.64	.20	
	View of Condition Impact	.22	-.32	
	Correlation of Scales with Established Measures			
		Child Behaviour		
		Problem	Intensity	
	Child's Daily Life	-.21	-.22	
	Condition Management Ability	-.23	-.25	
	Condition Management Effort	.13	.17	
	Family Life Difficulty	.31	.33	
	Parental Mutuality	-.25	-.28	
	View of Condition Impact	.09*	.15	
	p<.01 for all correlations except as noted: * p=.03.			
	<p>See Knafl, et al., (2010)</p> <p>Internal consistency reliability (ICR) for the scales, adjusted for inter-parental correlation, ranged from .72 to .90 for mothers and .73 to .91 for fathers (Knafl, G., et al., unpublished manuscript).</p> <p>Construct validity was supported by significant correlations between each of the scales and each of the related measures of family functioning, child functional status, and child behavior, with directions of relationships as expected.</p>			
Advantages	1) Good tool for looking at parent coping and management in the context of child TBI			
Disadvantages	1) No normative data, as used only in clinical groups, rather it has data			

	for various diagnoses.
Additional Information	This measure would be useful for TBI studies looking at parent coping in relation to social outcomes.
Reviewers	Vicki Anderson Cathy Catroppa

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