

A CRITICAL REVIEW OF FAMILY FUNCTIONING INDICES

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PRESENTATION OUTLINE

- ✚ INTRODUCTION
- ✚ DEFINITIONS OF FAMILY
- ✚ SYNOPSIS OF SOUTH AFRICAN FAMILY STRUCTURES
- ✚ AIMS, RATIONALE & METHODOLOGY
- ✚ REVIEW OF FAMILY FUNCTIONING INDICES:
 - FAMILY ASSESSMENT DEVICE (FAD)**
Theoretical Underpinnings And Psychometric Properties
 - FAMILY SYSTEM TEST (FAST)**
Theoretical Underpinnings And Psychometric Properties
 - ECO-MAPS**
Theoretical Underpinnings And Psychometric Properties
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INTRODUCTION

Family systems operate as a central form of social support to individuals, in addition to forming an intrinsic component of collective networks and ecologies (Amoateng & Richter, 2007).

Accordingly, we postulate that family systems are essential agents of change worthy of evaluating for the purposes of developing peacebuilding and safety promotion initiatives.

In order to effectively implement peace and safety promotion initiatives, research needs to be conducive to understanding the various ecological levels in which interventions can be piloted and implemented.

Families require both reliable and valid assessment techniques in order to implement efficacious interventions given that “families do not only exist in space but also through time” (Hartman, 1995, p.114).

DEFINITIONS OF FAMILY

The task of defining the family becomes exceedingly complex in multi-cultural, multi-racial and in modernising societies such as South Africa (Amoateng & Richter, 2007).

Amoateng and Richter (2007, p.14) argue that there is a general consensus in defining families as: “social groups that are related by blood (kinship), marriage, adoption, or affiliation with close emotional attachments to each other that endure over time and go beyond a particular physical residence.”

This definition is appropriate in the South African context, owing to its inclusive character and resultant emphasis on non-nuclear family constellations.

SYNOPSIS OF SOUTH AFRICAN FAMILY STRUCTURES

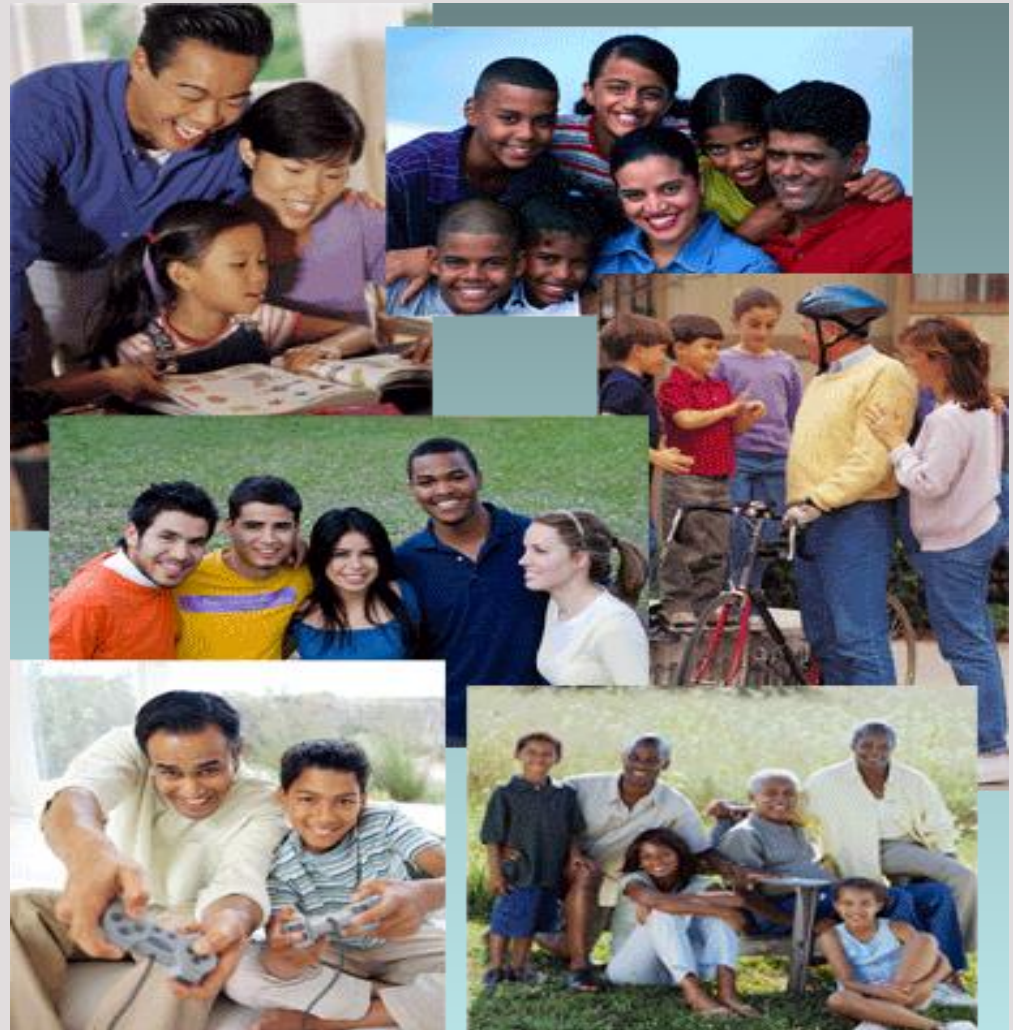
Nuclear families

Extended families

Child-headed households

Single parent families

Multi-generational families



AIMS, RATIONALE & METHOD

Primary aim: to inform formative programme development of peace and safety initiatives for families within South Africa.

From a limited review of 44 indices, this paper aims to critically review three family functioning assessment tools.

We excluded overtly clinical measures and indices which related to the assessment of family violence and focused on techniques of understanding family functioning contextually.

A two-tiered strategy was utilised in order to appraise the indices.

- a) We critically reviewed each techniques theoretical alignment, as well as its implicit assumptions.**
- b) The psychometric properties of each instrument were examined in order to ascertain their overall utility.**

This selection was made on the basis that the instruments appeared to demonstrate potential utility since all three appear to require minor methodological amendments preceding piloting especially in vulnerable South African communities.

Overview: Family Assessment Device

Family Assessment Device (FAD)

<i>Authors</i>	FAD was developed by Epstein, Baldwin and Bishop in 1983
<i>Instrument Category</i>	Quantitative psychological assessment measure
<i>Instrument Format</i>	60 item self-report questionnaire utilising a four-point Likert-scale with no 'neutral' response option
<i>Dimensions</i>	Derived from the six dimensions of the McMaster Model of Family Functioning (MMFF)
<i>Sub-scales</i>	Seven: Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Behaviour Control and General Family Functioning
<i>Examples of Items</i>	"In times of crisis we can turn to each other for support." or "We have rules about hitting people."
<i>Target Population</i>	12 years and older
<i>Languages Relevant to SA Context</i>	English and Afrikaans

FAD: *Theoretical Underpinnings*

The McMaster Model of Family Functioning is based on the family systems approach and defines a family as “**systems within systems (individual, marital, or dyad) and relating to other systems (extended family, schools, industry, religions)**” (Ryan *et al.*, 2005, p.24).

This definition implies that family interactions cannot simply be reduced to individual or dyadic characteristics, but rather that the family functions within a broader societal milieu.

It suggest that the functioning of families is contextualised.

Additionally, it does not preclude the kinds of non-traditional families living in South Africa.

MMFF Sub-Scales

1. **Problem Solving**
2. **Communication**
3. **Roles**
4. **Affective Responsiveness**
5. **Affective Involvement**
6. **Behaviour Control**: specific to three areas of family processes.
 - i. scenarios where the physical integrity of family member(s) is threatened;
 - ii. the psychobiological needs of each individual;
 - iii. the socialisation process both within the family and between external systems (Ryan *et al.*, 2005).
7. **General Family Functioning** (which can also be administered as a separate assessment form and can used as a method of rapid family appraisal)

The theoretical underpinnings of the FAD appear to support peace promotion and safety initiatives aimed at strengthening family functioning given that certain contextual factors impacting family relations are taken into account, particularly in terms of the first & third sub-component of the Behaviour Control sub-scale.

FAD: *Psychometric Properties*

Typically, only the General Family Functioning (12 items) subscale has been utilised with **Cronbach's alpha** ranging between **.85 - .90**, which is reasonably high (Alderfer *et al.*, 2008).

The remaining subscales (excluding Roles) have demonstrated acceptable internal consistency **with Cronbach's alphas** characteristically **greater than .70**.

Internal consistency estimates for the Roles subscale typically fall between the ranges of **.60 to .69**, which suggests that this subscale is moderately problematic.

It is advisable that culturally-loaded items are removed for South African samples and confirmatory factor analyses be employed with the purpose of validating the manifest subscales.

Overview: Family System Test (FAST)

Family System Test (FAST)

<i>Authors</i>	FAST was developed in 1984 by Gehringer and it was officially translated into English in 1993
<i>Instrument Category</i>	Mixed-methods psychological assessment tool
<i>Instrument Format</i>	A clinically derived Figure Placement Device and an open-ended follow-up interview. FAST materials include: (a) a monochromatic placement board consisting of 81 squares (45cm ² in diameter); (b) three-dimensional male and female figurines; and (c) three different sets of cylindrical blocks (1.5cm, 3cm and 4.5cm in height).
<i>Dimensions</i>	Two: Family Cohesion and Family Hierarchy
<i>Sub-scales</i>	Three: Cohesion, Hierarchy and Family Flexibility
<i>Examples of Items</i>	Not Applicable
<i>Target Population</i>	6 years and older
<i>Languages Relevant to SA Context</i>	English

FAST: *Theoretical Underpinnings*

Cohesion → “the emotional closeness that binds family members together” (Bowen, 1960; Minuchin, 1974 as cited in Rigazio-Digillio, 1993, p. 370)

Hierarchy → “the structure of mutual influence or dominance inherent in family functioning” (Steinhauer *et al.*, 1984 as cited in Rigazio-Digillio, 1993, p. 370).

Flexibility → the families’ ability to adapt their typical cohesion and hierarchy in response to varying situational and contextual elements (Rigazio-Digillio, 1993).

These facets of family functioning are of particular importance in peace and safety promotion initiatives, given that underlying power arrangements (for example patriarchal family structuring) may mediate the kinds of interventions that are expected to fortify family functioning and successively catalyse enduring community changes.

The structural assumptions of FAST posit that adaptive families will display the following patterns:

(i) clear generational boundaries;

In a society where nuclear families structures are not ubiquitous, the interpretation of the FAST may lack ecological validity.

(ii) higher cohesion between parent dyads than in comparison to parent-child dyads/triads;

(iii) parental dyads exhibit greater influence over sibling sub-systems (Rigazio-Digillio, 1993).

(i) And (ii) are potentially problematic in non-normative family systems (e.g. child-headed households)

In socio-economic locations where literacy levels are fairly low, figure placement techniques (such as FAST) would be realistically sensible to implement in addition to allowing for the assessment of young children.

FAST: *Psychometric Properties*

Temporal stability (one week) estimates for FAST have been moderate to strong given that they ranged from **.63 to .87**.

Test-retest reliability estimates were even lower over a four month period and the two dimensions ranged from **.42 to .59** (Rigazio-Digillio, 1993).

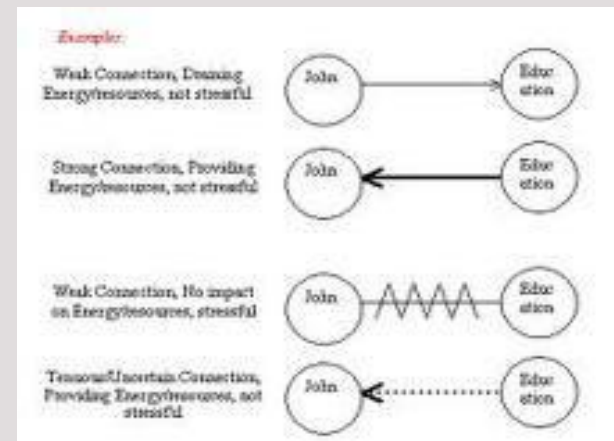
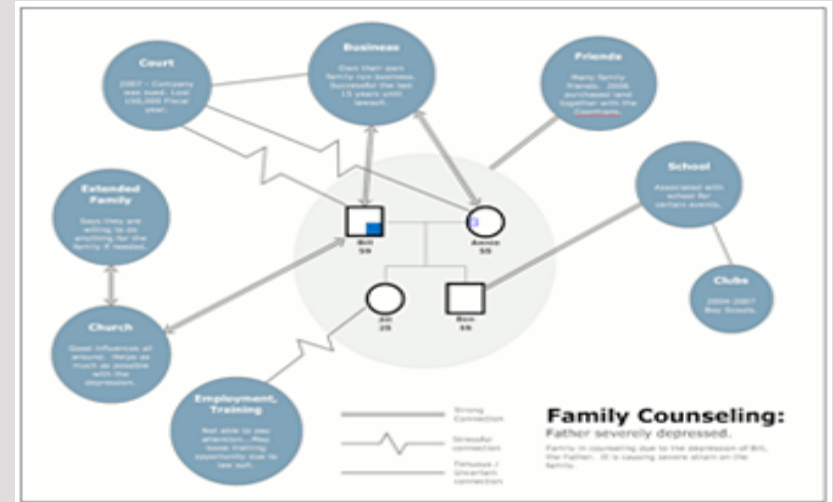
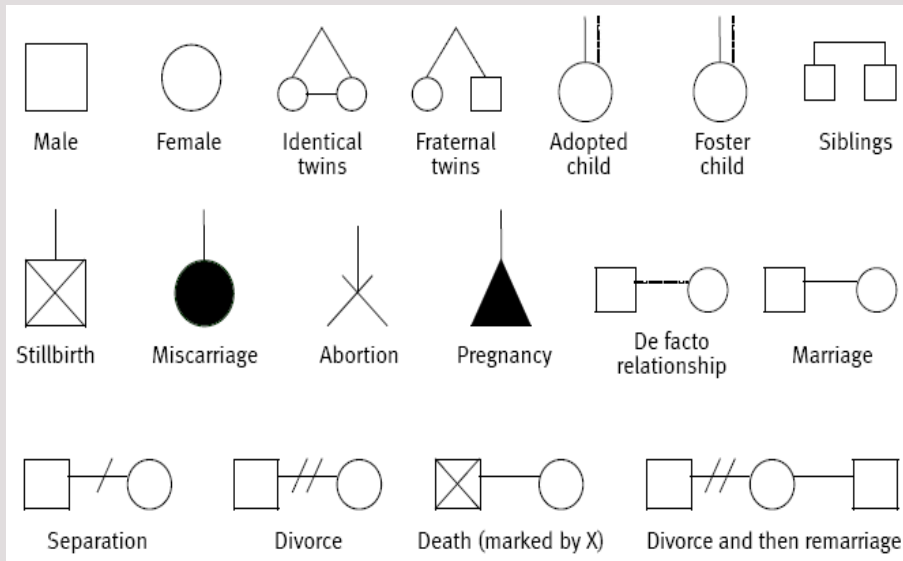
Convergent construct validity was demonstrated between the subscales of the FAST and another assessment index, the Family Environment Scale (FES), but exhibited fairly low correlations between the Cohesion subscales (coefficients ranged from **.43 to .57**) (Rigazio-Digillio, 1993).

The reliability estimates are modest and suggest that FAST may not be a psychometrically viable instrument particularly since no internal consistency reliability or inter-rater reliability estimates have been reported.

Overview: Eco-Maps

Eco-Maps	
<i>Authors</i>	Unknown
<i>Instrument Category</i>	Qualitative diagrammatic assessment tool
<i>Instrument Format</i>	Pen and paper schematic diagrams
<i>Dimensions</i>	Diagrammatic representation of individuals within family systems, their boundaries and connections with external systems
<i>Sub-scales</i>	(i) Strength of relational dynamics (ii) Quality of relationships (iii) Flow of resources between systems and individuals
<i>Examples of Items</i>	Not Applicable
<i>Target Population</i>	Unspecified
<i>Languages Relevant to SA Context</i>	English

Eco-maps: *Theoretical Underpinnings*



Diagrammatic assessment processes are both collaborative and empowering since they endeavour to involve all relevant family members.

This is significant since it allows for a contextual understanding of a family within its community as well as pin-pointing community assets and resources for potential intervention sites.

Given these theoretical underpinnings, eco-maps appear to be a reasonably functional assessment tool for administration within a South African context.

They can also be utilised as an effective data collection tool that field workers can easily be trained to use.

Eco-maps: *Psychometric Properties*

Traditional psychometric standards are not necessarily relevant to this methodology. However, Krippendorff (1980) has identified three types of reliability that are applicable to qualitative measurement techniques.

The instructions for the eco-mapping task could be informally translated fairly effortlessly for a variety of vulnerable communities and may possibly prove to be both practical and valuable.

However, eco-maps are not intended to be a stringent measurement tool capable of providing aggregated data of typical family functioning across a particular milieu.

Researchers would be able to glean data regarding family structuring across a particular setting utilising eco-mapping as well as capturing various demographic information (e.g. gender, primary home language, age, mean household income, mean household size).

DISCUSSION & RECOMMENDATIONS

This critical review proposes the most prudent and scientifically rigorous point of departure would be to investigate the types of family structures that are most prevalent across vulnerable South African communities.

In order to assess the existing patterns in family structures in South Africa, the following indices might demonstrate reliable efficacies especially if utilised in combination with one another:

- (a) mean household size (MHS);**
- (b) adult per household ratio (A/H ratio);**
- (c) age-specific headship rate (ASHR); and**
- (d) number of marital units (NMU) or generations in a household.**

(Amoateng *et al.*, 2007).

Eco-maps are a feasible instrument/tool to elicit this kind of data.

Prior to piloting any family functioning assessment tool, a socio-demographic profile should be generated utilising secondary sources of data (census data, published empirical studies) if possible, in order to explore pertinent situational variables (**for instance, education levels, literacy and preferred home language**) which might impact the cross-cultural applicability of assessment techniques.

Issues centred on **language biases** need to be considered. Given that the reviewed instruments tend to utilise English as the primary method of communication, this may significantly impact their ecological utility.

Cautious deliberations regarding the sampling methods should be considered owing to confounds related to selection biases.

Value judgements need to be made concerning the possible translation of instruments and/or instructions into more suitable languages.

Another consideration concerns literacy levels. If literacy levels are deficient, then diagrammatic assessment tools as well as figure placement techniques have demonstrated their relative merit.

Regular and rigorous evaluation is also a significant aspect to factor into programme planning. If this is done effectively, and if interventions are found to be successful, then such programmes could be adapted for similar communities.

In resource scarce contexts (inadequate funding, limited infrastructure etc), mutually beneficial collaborations are a means to overcome obstacles impinging on programme development.

Eco-maps, might for example, assist in identifying crucial community assets and stakeholders for partnership purposes; as well as indicating existing programmes which could be improved upon for peace building and safety promotion purposes.

In conclusion, to the extent that this review has been useful, we are advocating that a critical stance ought to be adopted when determining the utility of assessment tools particularly where such measures underpin social programme development and implementation.

**THANK YOU FOR
YOUR
ATTENTION.
QUESTIONS AND
FEEDBACK ARE
WELCOME.**

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**“Our computer is practically like a member of the family.
Maybe that’s why it’s so hard to get along with.”**

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