

The Family-of-Origin Scale: Relationship to Motivational and Cognitive Constructs

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Abstract

Family-of-origin interventions, particularly the work of Murray Bowen, are well-established in family therapy. Bowen believed that current psychological adjustment and adult relationship patterns were strongly influenced by the family in which one was raised. Bowen theory is one of a relatively few family therapy models that has generated empirically developed measurement tools. The Family-of-Origin Scale (FOS) was developed for adults to retrospectively assess family climate. Early FOS research suggested that the scale was reliable, demonstrated discriminant validity and was correlated with other established instruments assessing family functioning and individual adjustment. The current study extended previous psychometric research through an exploratory examination of the association of the FOS with established scales of both post-formal thought (The Social Paradigm Belief Inventory) and motivation (Academic Motivation Scale) in a sample of 108 predominantly young adults. Results indicated modest associations between the FOS and several theoretically congruent motivational dimensions of the Academic Motivation Scale but did not demonstrate an association with The Social Paradigm Belief Inventory.

Keywords: Family assessment, family-of-origin, motivation, post-formal thought.

1. Introduction

Family-of-Origin theory is one of the best known models of family therapy [1]. Two clinical theorists--Murray Bowen and James Framo--emphasized the role that adults' families of origin plays in their current relationships as well as in individual psychological adjustment [1]. Influenced by object relations theory, Framo highlights the current relationship influence of unconscious, internalized representations of past parent-child relationships [2]. Bowen's [3] perspective centers on the concept of individual differentiation from one's family-of-origin.

Differentiation refers to the ability to choicefully balance between emotional and intellectual functioning as well as between intimacy and autonomy in close relationships [4] and is one of the few family therapy constructs to be operationalized in the form of quantitative scales. The Family-of-Origin Scale [5] reflects Bowen's view that psychologically healthy individuals are able to maintain their own sense of individual identity while maintaining emotionally close, yet, unreactive, relationships with their families of origin [3,5].

Since its development over 25 years ago, the FOS has been employed in multiple studies. Psychometric investigations indicated that FOS scores exhibited excellent test retest and internal consistency reliability and that the scale discriminates between clinical and non-clinical samples—specifically adolescent psychiatric inpatients from non-patients and participants in an adult children of alcoholics program versus a sample of non-clinical adults [6,7]. In addition, FOS scores have been found to be positively correlated with scores on 16 PF subscales reflecting emotional stability, conscientiousness, and self-sufficiency [8] and inversely related to alexythymia and the externally oriented thinking subscale from the Toronto Alexithymia Scale [9] --findings that support the FOS' construct validity.

Family-of-origin theory emphasizes the pervasive influence of early family life experiences on contemporary psychological development; The current study seeks to explore the relationship of the FOS with a measure of post-formal thought [10] and an established measure of multiple forms of motivation [11]. In the past 15-20 years, developmental psychologists have critically questioned Piaget's view that formal operational thought, distinguished by the initiation of abstract reasoning, is the fourth and culminating stage of cognitive development. Contemporary theorists suggest that a fifth stage, post-formal, thought emerges in early adulthood [12]. While conceptualizations of post formal thought differ, there are three generally shared dimensions: recognizing and accepting contradictory information, acknowledging that knowledge on its own is relativistic, and integrating competing perspectives [10,13]. Although post-formal thought comes from a different scholarly background than family-of-origin theory, this conceptualization of a developmental stage characterized by meta-cognitive processes shares conceptual similarities with Bowenian differentiation. A well differentiated adult is able to integrate the competing family forces of emotional versus intellectual functioning and maintain a secure sense of identity while meaningfully engaged with others [3].

Persons with higher levels of differentiation are characterized by a strong sense of internal motivation. Self-determination theory provides a comprehensive explanation of motivation that includes the concepts of autonomy and relatedness [14]. Extrinsic motivation has been subdivided into four types arranged along a continuum: external regulation, introjection, identification, and integration. As one moves from external regulation to integration, behavior becomes more self-directed. Intrinsic motivation is also complex and includes motivation to know, motivation towards accomplishment, and motivation towards stimulation [15]. The remaining construct, amotivation, describes the absence of direction and motivation [15]. As noted above, well-differentiated individuals are able to be self-directed and autonomous while simultaneously maintaining sensitivity to the well-being of others [3,5]. For young adults in college, motivation for academic success is likely to be particularly salient. Vallerand and colleagues [11] developed the Academic Motivation Scale to assess the relative role of internal and external motivation in academic performance. Previous research has found that family dynamics play an important role in academic motivation. Specifically, an authoritative parenting history was found to be positively associated with both intrinsic and extrinsic motivation and negatively associated with amotivation [16].

The current study is an exploratory examination of the relationship between perceived family climate, as measured by the Family-of-Origin Scale [5], post formal thought as assessed with the Social Paradigm Inventory [10] and both intrinsic and extrinsic motivation reflected in scores on the Academic Motivation Scale [11].

2. Method

2.1 Participants

Participants were 108 students at a public university in the Midwestern United States. By gender, 71% were female and 29% were male, with ages ranging from 18- 55 years ($M =$

22.58 years, $SD = 7.51$). The ethnic composition of the university is 87% White European with Native American being the largest minority group at 7%.

2.2 Scales

Family-of-origin scale. The Family of Origin Scale (FOS) is a 40 item, five point Likert-type scale where “1” indicates strong disagreement while “5” indicates strong agreement [5]. The FOS is based upon two dimensions: autonomy and intimacy, each with five subscales and 20 items. Of these 40 questions, 20 are scaled positively while the other 20 are scaled negatively; the possible total score ranges from 40-200 [5]. Autonomy includes the following subscales “Clarity of Expression – thoughts and feelings are clear in the family; Responsibility – family members claim responsibility for their own actions; Respect for Others – family members are allowed to speak for themselves; Openness to Others – family members are receptive to one another; Acceptance of Separation and Loss – separation and loss are dealt with openly in the family” while the Intimacy dimension includes “Range of Feelings- family members express a wide range of feelings; Mood and Tone- a warm, positive atmosphere exists in the family; Conflict Resolution – normal conflicts are resolved without undue stress; Empathy – family members are sensitive to one another; and Trust- the family sees human nature as basically good” [3,17]. The original study found test-retest reliability for FOS scores for adults to be .97, with internal consistency (Cronbach’s alpha) at .75 [3]. Evidence of criterion validity has been found in several studies in which the FOS discriminated between clinical and non-clinical samples [6,7].

Social Paradigm Belief Inventory. Post-formal thought was measured by the forced-choice version of the Social Paradigm Belief Inventory (SPBI) [10] a 27 item survey –each with three response options indicating relative degree of agreement. These options reflect absolute thinking, relativistic thinking, and dialectical thinking. According to Kramer et al. [10], absolute thinking reflects the view that everything in the world is constant and has the ability to fall into specific categories; relativistic thinking is the ability to understand that things are constantly changing and subjective, and dialectical thinking reflects the ability to accept and integrate the idea of contradiction with relativism. Examples of items are as follows: “You cannot know a person completely. This is because getting to know a person in a particular way means not getting to know him or her in some other way (dialectical thinking)”; “You cannot know a person completely. This is because a person seems different all the time depending on what part of him or her you look at (relativistic thinking)”; “You can know a person completely. This is because after a long enough time a person’s real self emerges, allowing you to see what makes him or her tick (absolute thinking)”. Psychometric properties of the SPBI include reported test-retest reliability at .77, generally adequate internal consistency reliability (absolute thinking at .60, relativistic thinking at .83, and dialectical thinking at .84). The SPBI has also demonstrated both convergent and discriminant validity in relation to interviews that measured relativistic and dialectical thinking [10].

The individual SPBI subscales are scored as follows: three points for a dialectical statement, two points for a relativistic statement, and one point for an absolute statement. These numbers are then added together to create a total score. A higher total score indicates a higher level of post-formal thought (relativistic) while a lower score represents less sophisticated reasoning (absolute).

Academic Motivation Scale. The Academic Motivation Scale (AMS-C28) [11] assesses various types of motivation for pursuing a college education. The AMS-C28 consists of 28 statements and has 7 subscales assessing three overarching dimensions: intrinsic motivation (towards knowledge, accomplishments, and stimulation), extrinsic motivation (external, introjected, and identified regulations), and amotivation. In completing the AMS-C28, participants respond to the question, “Why do you go to college?” by choosing among options. Examples of response options associated with their respective subscales include: “Because with only a high-school degree I would not find a high-paying job later on” (external regulation); “Because I experience pleasure and satisfaction while learning new things” (to know); “Because I think that a college education will help me better prepare for the career I have chosen” (identified); “For the intense feelings I experience when I am communicating my own ideas to others” (to experience stimulation); “Honestly, I don’t know; I really feel that I am wasting my time in school (amotivation); “For the pleasure I

experience while surpassing myself in my studies” (toward accomplishment); and “To prove to myself that I am capable of completing my college degree (introjected)”. The AMS-C28 has been found to have legitimate psychometric properties that include: test-retest reliability at .79, internal consistency at .81, as well as factorial validity [11].

The AMS-C28 subscales reflect a continuum of self-determined motivation from the most highly intrinsic to the most highly extrinsic. In scoring the scale, we followed recommendations reported by the test’s developers and others [15, 17]: four sets of numbers were each added together using the formula $[(2*(IM\ knowledge + IM\ accomplishment + IM\ stimulation)/3 + 1*identified\ regulation) - ((1*external\ regulation + 2*(amotivation)))]$; the subscale of introjected regulation was removed in order to weight the subscales evenly [11]. The four separate numbers were then added together and averaged. The more positive the number the more intrinsic academic motivation was present.

3. Results

For the FOS, the mean score obtained in this study (See Table 1) was similar to the mean for whites ($M = 144.10$) in the original study by Hovestadt, et al. [5]. The SPBI mean scores obtained from our participants (See Table 1) were similar to the mean for college students ($M = 61.23$) collected from the original study by Kramer, Kahlbaugh, and Goldston [10]. Finally, for the AMS C-28, the means for the subscales collected in this study (See Table 1) were similar to the means combined for both males and females collected from the original study by Vallerand, and colleagues [11]: amotivation ($M = 6.60$), external regulation ($M = 21.79$), identified regulation ($M = 21.90$), intrinsic motivation – knowledge ($M = 19.68$), intrinsic motivation – accomplishment ($M = 16.73$), and intrinsic motivation – stimulation ($M = 13.02$).

Correlational analysis indicated several significant associations between scales and subscales (See Table 2). AMS Intrinsic Motivation was modestly correlated with FOS Autonomy, $r = .205$, and the total for the FOS, $r = .194$, but not with FOS Intimacy, $r = .174$, or SPBI postformal thought, $r = .003$. Postformal thought was modestly negatively correlated with FOS Autonomy, $r = -.192$, but was not correlated with FOS Intimacy, $r = -.122$, or the total FOS score, $r = -.16$. Postformal thought was also modestly correlated with the subscales of the AMS C-28 intrinsic to stimulate, $r = .220$, extrinsic to identify, $r = .209$, and extrinsic to externalize, $r = .231$. The FOS total score was correlated with the subscales of the AMS C-28 intrinsic to accomplish, $r = -.120$, extrinsic to identify, $r = -.204$, extrinsic to externalize, $r = -.321$, and amotivation, $r = -.213$.

4. Discussion and Conclusion

This exploratory study sought to determine whether there was an association between retrospective ratings of the family-of-origin, intrinsic academic motivation, and postformal thought. While associations were modest, the pattern of findings does suggest that there is a relationship between perceptions of family health as assessed by the FOS and several types of motivation as assessed by the AMSC-28. The associations between the FOS and post-formal thought, as assessed by the SPBI, were more limited with only a small, negative correlation with the FOS dimension, Autonomy.

The significant association between many of the motivational variables and the FOS Total as well as with the FOS Autonomy and Intimacy dimensions are generally consistent with theoretical expectations. Both the FOS total score and the Autonomy dimension were positively associated with the Intrinsic, Intrinsic to Accomplish, Extrinsic-Identified and Extrinsic Externalize subscales from the AMS. The FOS Intimacy dimension demonstrated modest, yet significant, correlations with fewer AMS subscales: Intrinsic to Accomplish, Extrinsic-Identified, and Extrinsic Externalize.

Overall, this pattern suggests that persons perceiving their family as healthier experienced higher levels of motivation to perform well in college. Specifically, family health on the FOS was associated with students who valued learning for its own sake and who experienced self-satisfaction when achieving academic goals. At the same time, however, students from healthier families viewed their academic work in the context of longer range social consequences. These future outcomes included being adequately prepared academically for

their career as well as being able to enter their vocation of choice. Finally, consistent with Bowen theory, respondents with lower levels of perceived family health were less likely to have clear goals or reasons—either intrinsically or extrinsically based-- for pursuing a college education.

When taken together, the results indicated some support for the relationship between intrinsic motivation and higher levels of perceived autonomy and intimacy as reported on the FOS. The magnitude of the correlations between motivation and perceived family functioning were comparable in magnitude to those found by Turner and colleagues [16] in their study of the impact of parenting styles on college students' academic motivation and self-efficacy. These investigators found that an authoritative parenting style, characterized by warmth, responsiveness and clear expectations, was associated with students who were intrinsically motivated [16].

The Academic Motivation Scale, based upon Deci and Ryan's [14] self-determination theory, has been employed in multiple studies since its initial development twenty years ago. By comparison, the Social Paradigm Beliefs Inventory, has not been as widely used for assessing developmental cognition. In the current study, SPBI scores were treated as continuous data as opposed to some other studies that employed the categories of postformal and absolute [18, 19].

Informal, qualitative review of the SPBI content suggests that the items that measure relativistic and dialectical thinking are very similar. Additionally, as noted in the introduction, there are multiple models of the distinctive cognitive processes and reasoning styles associated with post-formal thought. Other studies of post-formal thought have employed semi-structured interviews, including verbally presented dilemmas and classified responses according to detailed stages [20]. These stage based interview assessments may be more specific in describing the different cognitive abilities involved in postformal thought at various developmental levels. For example, the Reasoning About Current Issues Test (RCI) measures specific levels of postformal thought from the Reflective Judgment Model [20, 21]. While the current study found no meaningful associations between postformal thought and family health, the SPBI may not represent the construct well.

The Family-of-Origin Scale, while theoretically sound and with established psychometric properties, may have limitations stemming from its use as a retrospective instrument. There is no way to determine the extent to which FOS ratings actually represent family processes occurring during the respondent's upbringing. However, from the perspective of object relations theory, the internalized representation of family functioning reflects the respondent's subjective experience of their family [1] which is, in itself, meaningful.

In summary, our study found a positive association between intrinsic academic motivation and healthier perceived family functioning, which is in agreement with the literature regarding self-determination theory; however, contrary to expectations there was not an association between postformal thought and perceived family functioning. Although the current study did not find this association, the potential relationship between perceived family functioning and postformal thought should still be explored.

Table 1. Mean Scores for the Family-of-Origin Scale, Social Paradigm Belief Inventory, and the Academic Motivation Scale

	Mean	Std. Deviation
Intrinsic Motivation (AMS-C28)	10.54	3.89
Intrinsic To Know (AMS-C28)	21.31	4.82
Intrinsic To Accomplish (AMS-C28)	18.85	5.08
Intrinsic To Stimulate (AMS-C28)	13.49	5.59
Extrinsic To Identify (AMS-C28)	23.48	3.61
Extrinsic To Externalize (AMS-C28)	23.55	3.91
Amotivation (AMS-C28)	6.34	4.32
Postformal Thought (SPBI)	59.18	4.87
Intimacy (FOS)	74.28	15.44
Autonomy (FOS)	71.45	15.01
Total FOS Score	145.73	29.77

Table 2: Correlations Between Family-of-Origin, Academic Motivation, and Social Paradigm

Scales	Intrinsic	Intrinsic To Know	Intrinsic-To To Accomplish	Intrinsic-To To Stimulate	Extrinsic-Identified	Extrinsic-Externalize	Amotivation	Intimacy	Autonomy	FOS Total	Social Paradigm Belief Inv
Intrinsic	1										
Intrinsic To Know	.755**	1									
Intrinsic-To To Accomplish	.768**	.713**	1								
Intrinsic-To To Stimulate	.587**	.541**	.364**	1							
Extrinsic-Identified	.653**	.411**	.549**	.159	1						
Extrinsic-Externalize	.325**	.234*	.412**	-.031	.653**	1					
Amotivation	-.752**	-.352**	-.391**	-.166	-.422**	-.236*	1				
Intimacy	.174	.116	.211*	-.096	.210*	.236*	-.176	1			
Autonomy	.205*	.157	.232*	-.140	.209*	.231*	-.242*	.910**	1		
FOS Total	.194*	.140	.226*	-.120	.215*	.239*	-.213*	.987**	.977	1	
Social Paradigm Belief Inv	.003	.042	-.041	.220*	-.204	-.321**	.071	-.122	-.199*	-.160	1

Scales

*p<.05, **p<.01

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