

The ABCX Formula and the Double ABCX Model

The ABCX Formula

Besides the Truncated Roller Coaster Profile of Adjustment, Reuben Hill (1949, 1958), based on prior research conducted by himself and others (Angell, 1936; Cavan & Ranck, 1938), developed the ABCX Formula, better known as the ABCX Model, to explain “the crisis-proneness and freedom from crisis among families” (Hill, 1958, p. 143). Although Hill referred to the components of the ABCX Formula in his 1949 work, he did not label the components as *A*, *B*, *C*, and *X* until 1958. The ABCX Formula is the basis of most family stress models, leading Hill to be called the father of family stress theory (Boss, 2002). The ABCX Formula focuses primarily on precrisis variables of families: *A* (the crisis-precipitating event/stressor) interacting with *B* (the family’s crisis-meeting resources) interacting with *C* (the definition the family makes of the event) produces *X* (the crisis).

Conceptual Framework of the ABCX Formula

A B C ——— X

A. The Crisis-Precipitating Event/Stressor

Hill (1958) used the terms *crisis-precipitating event* and *stressor* to mean “a situation for which the family has had little or no prior preparation and must therefore be viewed as problematic” (p. 139). He contended that

crisis-precipitating events affect families differently based on the hardships that accompany them. Hill (1958) defined hardships as complications of a stressor that demand competencies (resources) from the family. Whether or not a stressor led to hardships (and how many) determined whether a family defined a stressor positively or negatively. Examples of hardships of families that experienced the stressor of the husband/father conscription into the armed forces found by Hill (1949) included sharp changes in income, housing inadequacies, enforced living with in-laws or other relatives, illness of wife or children, wife's having to work and to take on both parenting roles, and child-discipline problems stemming from the father's absence. According to Hill, the crisis-precipitating event or stressor interacted with the family's crisis-meeting resources.

B. The Family's Crisis-Meeting Resources

Since the family resources Hill (1958) described appeared after the stressor and prior to the crisis, a more appropriate term for *B* might be *the family's stressor-meeting resources*. That being said, Hill defined family crisis-meeting resources as factors in family organization that, by their presence, kept the family from crisis or, by their absence, urged a family into crisis. In other words, resources determined the adequacy (crisis-proofness) or inadequacy (crisis-proneness) of the family. Hill summarized the family's crisis-meeting resources previously studied, such as family integration and family adaptability, from Angell (1936). According to Hill, the crisis-precipitating event and the family's resources interacted with the family's definition of the event.

C. The Definition the Family Makes of the Event

Hill (1958) said that the subjective definition the family made of the event equaled the meaning or interpretation of the event and its accompanying hardships for the family. According to Hill, the tendency to define the stressor events and the accompanying hardships of the stressor as crisis-producing/-provoking versus challenging made the family more crisis-prone. According to Hill, the crisis-precipitating event, the family's resources, and the family's definition of the event interacted to lead to crisis.

X. The Crisis

A family in crisis, according to Hill (1958), would have role patterns in flux and shifting expectations, resulting in "slowed up affectional and

emotion-satisfying performances” (p. 146). Families in crisis might experience sharp changes in the sexual area, such as in the frequency and pattern of sexual relations. This crisis manifestation is frequently experienced when the stressor is the loss of a child.

Critique of the ABCX Formula

The ABCX Formula describes only precrisis variables and the crisis. Calling the resources crisis-meeting is misleading. Stressor-meeting is a more appropriate description, considering where the resources appear in the formula, after the stressor and prior to the crisis. It is a linear, deterministic model. Despite its limitations, the ABCX Formula is the basis of most family stress models and led to Hill’s being called the father of family stress theory (Boss, 2002).

Summary of the ABCX Formula

According to the ABCX Formula, *A* (the crisis-precipitating event/stressor) interacting with *B* (the family’s crisis-meeting resources) interacting with *C* (the definition the family makes of the event) produces *X* (the crisis). Hill (1958) contended that hardships were attributes of the stressor event and that whether a family defined a stressor positively or negatively was affected by whether the stressor led to hardships in the family. Hill defined the *B* factor/family resources as the adequacy (crisis-proofness) or inadequacy (crisis-proneness) of family organization.

The *C* factor in the formula is the definition, meaning, or interpretation of the *A* factor/stressor. According to Hill (1958), the tendency to define the stressor events and the accompanying hardships of the stressor as crisis-producing makes a family more crisis-prone. A family in a crisis state, according to Hill, will have role patterns in flux and expectations shifting, resulting in “slowed up affectional and emotion-satisfying performances” (p. 146). The ABCX Formula has some problems, such as being linear and deterministic, but it withstood the test of time as the basis of most family stress models (Boss, 2002), such as the Double ABCX Model.

The Double ABCX Model

Family scientists Hamilton McCubbin and Joan Patterson (1982, 1983a, 1983b), based on their longitudinal “study of families who had a husband/father held captive or unaccounted for” in the Vietnam War, expanded upon

Hill's (1958) ABCX Formula by adding postcrisis variables to explain and predict how families recover from crisis and why some are better able to adapt than others (Patterson, 1988). Using Hill's ABCX Formula as a foundation, McCubbin and Patterson (1982, 1983b) added (1) additional life stressors and strains; (2) psychological, intrafamilial, and social resources; (3) changes in the family's definition; (4) family coping strategies; and (5) a range of outcomes, with family coping strategies being the Double ABCX Model's major contribution to stress theory. See Figure 4.1. The model has three main parts: precrisis, crisis, and postcrisis.

Conceptual Framework of the Double ABCX Model

Precrisis

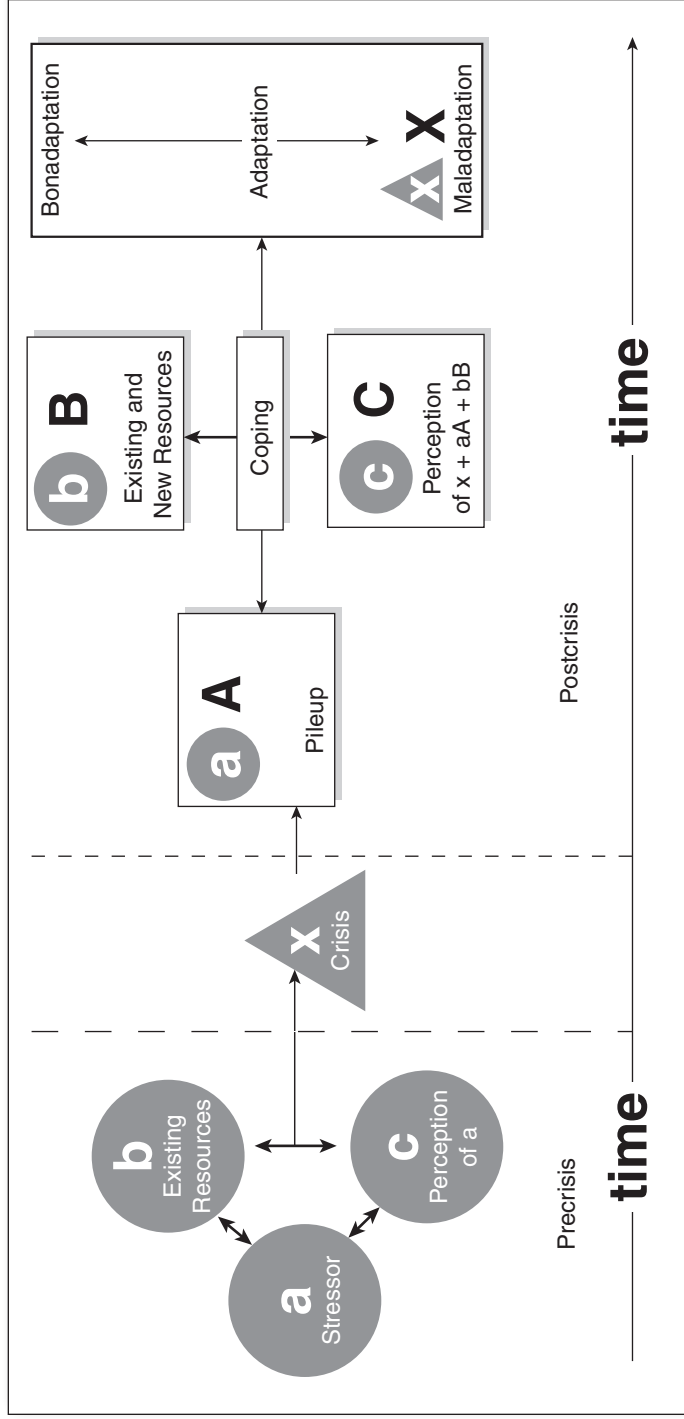
The precrisis of the Double ABCX Model includes the same variables as the ABCX Formula up to the crisis. These include the variables of the stressor, resources, and definition. McCubbin and Patterson (1983a, 1983b) used lowercase letters and changed the labels of variables a little from the original ABCX Formula, however.

The *a* in the Double ABCX Model represents the initial stressor. In the population studied by McCubbin and Patterson (1983a, 1983b), it was separation from the husband/father held captive or missing during the Vietnam War. This stressor is equivalent to *A* in the ABCX Formula (Hill, 1958) while the *b* is equivalent to the *B* in the ABCX Formula. McCubbin and Patterson (1982, 1983a, 1983b) changed the label *b* from *crisis-meeting resources* (Hill, 1958) to *existing resources*. The label *existing resources* is probably a better label since families actually used the resources in Hill's (1958) formula after a stressor but prior to a crisis. In addition, McCubbin and Patterson (1982, 1983a, 1983b) expanded on resources to include psychological/individual and social/community resources as well as intrafamilial/family resources considered by Hill. McCubbin and Patterson (1982, 1983a, 1983b) changed the label *c* from *the definition the family makes of the event* (Hill, 1958) to *perception of a*. They did not give a reason for what appears to be an arbitrary change.

Crisis

In the Double ABCX Model, *x* stands for crisis. It is equivalent to *X* in Hill's (1958) ABCX Formula. While the ABCX Formula ends with the crisis, the Double ABCX Model goes on to include postcrisis variables.

Figure 4.1 The Double ABCX Model



Source: McCubbin & Patterson (1983a).

Postcrisis

The postcrisis variables in the Double ABCX Model include pileup of stressors on top of the initial stressor (*aA*); existing and new resources (*bB*); perception (definition) of the initial stressor, pileup, and existing and new resources (*cC*); coping; and adaptation to the postcrisis variables (*xX*).

aA. Pileup. Pileup (*aA*) experienced by the families in the study included that resulting from five sources: (1) the initial stressor; (2) hardships of the initial stressor that increased and persisted over time to become chronic strains; (3) transitions; (4) the consequences of family efforts to cope with the separation; and (5) ambiguity within the family and within society. Hardships (demands on resources) this population experienced may have included demands on money and time. Transitions continued to occur in the family despite the absence of the husband/father. A consequence of the mothers' assuming the fathers' roles was disapproval from kin. Two types of ambiguity occurred: boundary and social. Boundary ambiguity occurred since it was unclear whether the husband/father would return. Was the husband/father still a family member? Social ambiguity is "the absence of appropriate norms and procedures for managing stressful situations" (McCubbin & Patterson, 1983a, p. 93). Wives experienced social ambiguity when their husbands' powers of attorney expired and they were unable to complete legal transactions without having legal guidelines for after the expiration.

bB. Existing and New Resources. In the Double ABCX Model, the *b* represents resources that existed precrisis while the *B* represents new resources that develop to be used to cope with the initial crisis. Existing resources used by the sample used to develop the model included friends, religious involvement, mental health professionals, togetherness, role flexibility, shared values and goals, and expressiveness. New resources used by the sample included educational opportunities, increased self-esteem and self-sufficiency, reallocated roles and responsibilities, new communities, new families, and community groups (counseling and church) and clubs.

cC. Perception of $x + aA + bB$. In the Double ABCX Model, the *c* is the perception/definition of the stressor that led to the crisis. The *C* is the family's perception/definition of the crisis, pileup, and existing and new resources. When the *cC* factor is positive, family members are better able to cope. The wives in the study gave positive meanings to their situations, such as "a challenge," "an opportunity for growth," or "the Lord's will" (McCubbin & Patterson, 1983a, p. 97).

Coping. Wives in the study coped by doing more things with their children, assuming stronger leadership roles in their families, encouraging the expression of feelings among family members, considering their spouses outside the family to justify behaviors such as dating while considering them inside the family to access their military wages, and forming a social network. How a family copes influences how well it adapts.

Adaptation. Adaptation can be a process or an outcome. In the Double ABCX Model, adaptation refers to an outcome as a result of change in the family system, which evolves and is intended to have long-term consequences involving changes in family roles, rules, patterns of interaction, and perceptions. It consists of a continuum of balance in functioning at two levels, the member-to-family and family-to-community levels. The positive end of the continuum, called bonadaptation, signifies balance at both the member-to-family and family-to-community levels. The negative end of the continuum, maladaptation represented by xX , signifies continued imbalance in one or both levels, or balance at the expense of the family's or a family member's integrity, development, or autonomy.

Critique of the Double ABCX Model

On the positive side, the Double ABCX Model includes precrisis, crisis, and postcrisis variables. The change of the label b from *crisis-meeting resources* to *existing resources* is a positive change since the b resources in the formula represent those used prior to a crisis.

On the negative side, McCubbin and Patterson (1982, 1983a, 1983b) call c “perception of the stressor” rather than “definition of the stressor” as Hill (1958) did—what appears to be an arbitrary change. In addition, in the Double ABCX Model, “coping does not come into play until after the family has used its resources, defined the situation, experienced crisis, and stress pile-up has occurred. It is reasonable to think that coping is constantly going on” (Burr, 1989, p. 52). Indeed, if a family uses resources precrisis, the family is coping, albeit insufficiently, when a crisis occurs.

Summary of the Double ABCX Model

In the Double ABCX Model, McCubbin and Patterson (1982, 1983a, 1983b) build on the ABCX Formula (Hill, 1958). The precrisis variables of the stressor, existing resources, and perceptions of the stressor lead to the crisis, followed by the postcrisis variables of pileup of stressors on top of the initial stressor, the use of existing and new resources, the perception

of the pileup and existing and new resources, coping, and adaptation to the postcrisis variables. The major contribution of the Double ABCX Model was the addition of coping, albeit only postcrisis.

Summary

This chapter presented two family stress models, the ABCX Model and the Double ABCX Model. The ABCX Model began with the stressor and ended with the crisis, while the Double ABCX Model began with the stressor but went on to include postcrisis variables. Since the ABCX Model is the basis of most family stress models, its developer, Hill (1958), has been called the father of family stress theory. For a comparison of variables in both the ABCX and Double ABCX models with other models, see the Appendix.

EXERCISES

- 4.1 Outline the crisis from Exercise 2.1 using Hill's (1958) ABCX Formula/Model concepts. Following is an example of this assignment based on the case study from Chapter 2.
- I. A—The crisis-precipitating event/stressor (and its hardships)
 - A. Stressor: husband's death
 - B. Hardships:
 1. Demands on time to attend wake and funeral
 2. Demands on energy to grieve
 3. Demands on space to accommodate guests for funeral
 - II. B—The family's crisis-meeting resources (organization) (high, medium, low): medium
 - A. Integration (high, medium, low): medium
 1. Willingness to sacrifice personal interest to attain family objectives (high, medium, low): high; I sacrificed my personal interests to care for my husband and child
 2. Pride in the family tree and in the ancestral traditions (high, medium, low): medium, there was pride in the family tree from one side of the family but not the other
 3. Presence of strong patterns of emotional interdependence and unity (high, medium, low): low; we did not share our emotions very readily
 4. High participation as a family in joint activities (high, medium, low): low; other than going to doctors' visits, we did not share many activities

5. Strong affectional ties between father-mother, father-children, mother-children, and children-children (high, medium, low): medium
 - a. Father-mother (high, medium, low): medium; focused on illness and child
 - b. Father-children (high, medium, low): low; father was not able to pick up and hold child because of illness; he seemed to disengage
 - c. Mother-children (high, medium, low): medium; child was source of emotional satisfaction
 - d. Children-children (high, medium, low): only one child
- B. Adaptability (high, medium, low): medium
 1. Previous success in meeting family crises (high, medium, low): medium; had recovered from other crises as when husband diagnosed with cancer but not to prior level of functioning
 2. Predominance of non-materialistic goals (high, medium, low): high; goals were within financial means for example, we lived in a mobile home at the time
 3. Flexibility and willingness to shift traditional roles of husband and wife or of father and mother, if necessary (high, medium, low): low; husband could barely perform his roles much less shift roles
 4. Acceptance of responsibility by all family members in performing family duties (high, medium, low): low; primary responsibility for all household duties and child care were mine due to husband's illness
 5. Presence of equalitarian patterns of family control and decision-making (high, medium, low): high; decisions were made as a couple
- C. Marital Adjustment (poor, fair, or good): fair to good
 1. Wife (poor, fair, or good): good; there were no disagreements
 2. Husband (poor, fair, or good): fair; husband could not really participate as a marital partner in many ways
- III. C—the definition the family makes of the event (challenging or crisis-provoking): challenging; I believed that I would be successful in spite of my loss
- IV. X—the crisis
 1. Behavioral:
 - a. Excessive activity
 - b. Isolation
 2. Cognitive:
 - a. Distressing dreams
 - b. Slowed thinking

3. Emotional:
 - a. Emotional shock
 - b. Guilt
 - c. Numbness
4. Physical: Sleep disturbance (insomnia)

Now complete the following outline based on your crisis.

- I. A—The crisis-precipitating event/stressor (and its hardships)
 - A. Stressor
 - B. Hardships
- II. B—The family's crisis-meeting resources (organization)
 - A. Integration (high, medium, low)
 1. Willingness to sacrifice personal interest to attain family objectives (high, medium, low)
 2. Pride in the family tree and in the ancestral traditions (high, medium, low)
 3. Presence of strong patterns of emotional interdependence and unity (high, medium, low)
 4. High participation as a family in joint activities (high, medium, low)
 5. Strong affectional ties between father and mother, father and children, mother and children, and children and children (high, medium, low)
 - B. Adaptability (high, medium, low)
 1. Previous success in meeting family crises (high, medium, low)
 2. Predominance of nonmaterialistic goals (high, medium, low)
 3. Flexibility and willingness to shift traditional roles of husband and wife or of father and mother, if necessary (high, medium, low)
 4. Acceptance of responsibility by all family members in performing family duties (high, medium, low)
 5. Presence of equalitarian patterns of family control and decision making (high, medium, low)
 - C. Marital Adjustment (poor, fair, or good)
 1. Wife (poor, fair, or good)
 2. Husband (poor, fair, or good)
- III. C—The definition the family makes of the event (challenging or crisis-provoking)
- IV. X—The crisis

4.2 Outline a personal crisis or that of someone you know using the Double ABCX Model concepts. Following is an example of the assignment based on the case study in Chapter 2.

I. Precrisis

- A. Stressor (a): husband's death
- B. Existing resources (b)
 - 1. Psychological/individual: did not use psychological/individual resources
 - 2. Intrafamilial/family: did not use intrafamily resources
 - 3. Social/community
 - a. Persons
 - 1) Coworkers
 - 2) Friends
 - 3) Relatives
 - b. Institutions: mesoenvironmental—funeral home
- C. Perception of a (b): challenging; I believed that I would be successful in spite of my loss

II. Crisis (x)

- A. Amount of consciousness and acceptance by each family member of his or her and others' family roles (better than average, average, below average): below average; my parents took care of my son for a period of time—a few days, I think—so I was not performing my role as parent
- B. Extent to which family members worked toward family and individual good (better than average, average, below average): below average; I was not taking care of my son, and self-care was based on what others told me to do
- C. How much family members found satisfaction with family unit (better than average, average, below average): below-average; the family unit had been redefined, and ways to find satisfaction would need to be redefined as well
- D. Whether the family had a sense of direction and was moving in that direction (better than average, average, below average): below average; family goals would need to be redefined by me as a single parent

III. Postcrisis

- A. Pileup (aA)
 - 1. Initial stressor (a): husband's death
 - 2. A
 - a. Hardships from a (initial stressor)
 - 1) Demands on time to attend wake and funeral

- 2) Demands on energy to grieve
- 3) Demands on space to accommodate guests for funeral
- b. Transitions: not going through any transitions at the time
- c. Consequences of coping efforts: no negative consequences of coping efforts
- d. Ambiguity
 - 1) Family boundary: no family boundary ambiguity
 - 2) Social: no social ambiguity
- B. Existing and new resources (bB)
 - 1. Existing resources (b)
 - a. Psychological/individual: did not use psychological/individual resources
 - b. Intrafamilial/family: did not use intrafamily resources
 - c. Social/community
 - 1) Persons
 - a) Coworkers
 - b) Friends
 - c) Relatives
 - 2) Institutions: mesoenvironmental—funeral home
 - 2. New resources (B)
 - a. Psychological/individual: knowledge
 - b. Intrafamilial/family: no new intrafamilial resources
 - c. Social/community
 - 1) Groups—self-help
 - 2) Institutions
 - a) Mesoenvironmental—churches
 - b) Macroenvironmental—government policies
- C. cC
 - 1. Perception of a (c): challenging; I believed that I would be successful in spite of my loss
 - 2. Perception of $X + aA + bB$ (C): challenging but not insurmountable, since I had resources
- D. Coping
 - 1. Negative: no negative coping strategies used
 - 2. Positive:
 - a. Cognitive
 - 1) Accepted the situation and others
 - a) Quickly accepted and confronted the situation
 - b) Accepted limitations; did not try to do or be everything

- 2) Gained useful knowledge
 - a) Found information and facts about the situation
 - b) Understood the essential nature of the situation
- 3) Changed how the situation was viewed or defined
 - a) Separated the stress into manageable parts
 - b) Did not have false hopes but had faith in own ability to handle the situation
 - c) Did not blame others or become preoccupied with blaming; instead was solution-oriented
- b. Emotional Activities
 - 1) Expressed feelings and affection
 - a) Was honest, clear, and direct in expressing affection
- c. Relationship Activities
 - 1) Developed family cohesion and togetherness
 - a) Did things with children and maintained stability
 - 2) Maintained family adaptability and flexibility
 - a) Was flexible and willing to change family roles, behaviors, and attitudes
- d. Communication Activities
 - 1) Was open and honest
 - a) Was open and honest in communications with others
- e. Community Activities
 - 1) Sought help and support from others
 - a) Sought and accepted help from relatives when needed
 - b) Sought and accepted help from community services when needed
- f. Spiritual Activities
 - 1) Was more involved in religious activities
 - 2) Increased or sought help from God
 - a) Believed in God
- E. Adaptation
 - 1. Bonadaptation
 - a. Member-to-family balance: member-to-family functioning was balanced as both my and my son's individual needs were met as were those of us as a collective family
 - b. Family-to-community balance: family-to-community functioning was balanced since there was no dependency on the community and roles in the community were performed
 - 2. Maladaptation (xX): no maladaptation
 - a. Member-to-family imbalance
 - b. Family-to-community imbalance

- c. Balance at expense of family member
 - 1) Integrity
 - 2) Development
 - 3) Autonomy

Now complete the following outline for your crisis.

- I. Precrisis
 - A. Stressor (a)
 - B. Existing resources (b)
 - 1. Psychological/individual
 - 2. Intrafamilial/family
 - 3. Social/community
 - C. Perception of a (b)
- II. Crisis (x)
- III. Postcrisis
 - A. Pileup (aA)
 - 1. Initial stressor (a)
 - 2. A
 - a. Hardships from a (initial stressor)
 - b. Transitions
 - 1) Individual
 - 2) Family
 - c. Consequences of coping efforts
 - 1) Consequences of negative coping strategies
 - 2) Consequences of positive coping strategies
 - d. Ambiguity
 - 1) Family boundary
 - 2) Social
 - B. Existing and new resources (bB)
 - 1. Existing resources (b)
 - a. Psychological/individual
 - b. Intrafamilial/family
 - c. Social/community
 - 2. New resources (B)
 - a. Psychological/individual
 - b. Intrafamilial/family
 - c. Social/community
 - C. cC
 - 1. Perception of a (c)
 - 2. Perception of $X + aA + bB$ (C)

- D. Coping
 - 1. Negative
 - 2. Positive
- E. Adaptation
 - 1. Bonadaptation
 - a. Member-to-family balance
 - b. Family-to-community balance
 - 2. Maladaptation (xX)
 - a. Member-to-family imbalance
 - b. Family-to-community imbalance
 - c. Balance at expense of family member
 - 1) Integrity
 - 2) Development
 - 3) Autonomy

References and Suggestions for Further Reading

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