



Factor Structure of the Life Events Checklist in Youth



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INTRODUCTION

Research on how life events impact the well-being of youth is germane to the field of clinical child and adolescent psychology. To further understand this relation, it is important to continually revise and update our conceptualization of life events in youth. Life events experienced in youth will continue to change as a result of the fluctuating state of the world. As a result, youth's appraisals of life events may change. Moreover, although some life events are expected, (i.e., making new friends, changing schools) and may not be considered negative or bad, they may still impact a youth's life in a negative manner. Finally, it is rare that life events occur in isolation due to their dynamic nature. Thus, it is necessary to investigate the patterns of how events may co-occur so that researchers can begin to understand the similarities and differences of events. The types of events experienced, as opposed to the quantity of events, may be more important in furthering our understanding of the relation between the experience stressors and presentation of psychological outcomes. That is, it is not clear from the literature that life events with different names actually represent different experiences, as all stressors require some kind of adaptation or response on the part of the recipient (i.e., child). Therefore, it is important that research address the manner in which we measure and categorize events in stress research to gain a better understanding of what it really means when children endorse exposure to stress events.

The Life Events Checklist (LEC; Johnson & McCutcheon, 1980) contains 46 self-report items representing a wide range of possible life events. Several studies have used this measure to investigate the relation between life events and child psychopathology (i.e., Gothelf, et al., 2004). The LEC is a good representation of the most widely used format to assess life events in children, namely the checklist; however, it is not clear that the list of events actually represent different categories of experiences. Thus, the current study investigated the patterns of life events in youth by conducting an exploratory and confirmatory factor analysis of the 46 items of the LEC.

METHODS

Participants

Four hundred and thirty-two youth from public schools in the midwest participated in the current study. Participants' ages ranged from 6 years to 13 years, with a mean age of 10 years. The majority (95%) of the participants were in the third to sixth grade. Approximately 75% of the youth were Caucasian, and 9% were African American.

Procedure and Measures

The data for the current study were collected as part of a larger study on youth stress and resilience. Parents signed consent forms and the children completed the LEC among other measures.

The Life Events Checklist (Johnson & McCutcheon, 1980) contains 46 items for which participants can endorse the occurrence of the event in the past year and how they would rate the event (i.e., good or bad). The participants can also rate the degree to which the event impacted their lives (i.e., four point likert rating scale). For the current study, only the rating of whether the event occurred was used. That is, a dichotomous variable of the occurrence of the events was used for the analyses.

ANALYSES

An exploratory factor analysis (EFA) of all 46 items on the LEC using unweighted least squares extraction and orthogonal rotation was conducted with the sample of 432 youth. By using the criterion of eigenvalues greater than 1.0, eighteen factors were suggested; however, the scree plot indicated that three to five factors existed in the data. Subsequent analyses included a comparison of the three factor structures. Due to item overlap and theoretical considerations, a three factor solution was proposed using 11 items.

A confirmatory factor analysis (CFA) was conducted on the 11 item, three factor structure using the model identified from the EFA. Due to the dichotomous nature of the items, a tetra choric matrix was analyzed using a weighted least squares extraction method. Additionally, the three latent variables were fixed at 1.0 using the fixed factor method.

Table 1

Life Event Checklist Items and Item Loadings

Factor 1: Interpersonal change	
New boyfriend/girlfriend	.776
Breaking up with significant other	.568
Teacher trouble	.463
Factor 2: Change in home environment	
Moving to new home	.624
Changing schools	.503
Parents divorced	.344
Foster home	.355
Factor 3: Environmental conduct problems	
Disobey rules	.369
Failed sports team	.323
Bad report card	.450
Classmate trouble	.423

RESULTS

Exploratory Factor Analysis

The three factor solution from items accounted for 40.2% of the item variance, with factor one accounting for the most variance (17.2%) and factor three accounting for the least (11.6%). The three factors identified were: Interpersonal Change, Home Environment Instability, and School Problems. See Table 1 for the item loadings.

Confirmatory Factor Analysis

Overall, the model was an acceptable fit to the data; however, the fit indices were somewhat inconsistent. The minimum fit function Chi-square was significant [$\chi^2 = 336.32, df=41, p = 0.00$]. The root mean square error of approximation (RMSEA) was 0.13 indicated a poor fit (RMSEA = 0.13); however, the Non-Normed Fit Index (NNFI) and the Comparative Fit Index (CFI) both indicated a close fit (NNFI = 0.99, CFI = 0.99).

DISCUSSION

The current study sought to investigate that pattern and occurrence of life events in youth. Results of this study indicate that indeed certain life events do tend to occur together. These events tend to cluster around three areas in the lives of youth: changes in interpersonal relationships, instability in the home environment, and difficulties in school. Factors one incorporates changes in youth's romantic relationships; however, it also includes problems in the teacher-student relationship. This is of particular interest, as this factor includes two domains of relationships in the youth's lives. Moreover, it is of interest that this item does not load onto School Problems. It is possible that the relationships youth have with their teachers is more salient and important than a peer relationship. Additionally, items were found to occur together despite the perceived 'goodness' or 'badness' of the event. Indeed, moving to a new home (Factor two) or beginning a new romantic relationship (Factor one) could certainly be perceived as a positive change, albeit a potentially stressful one. Finally, it is important to note that Factor three accounts for only events occurring in the school environment. This is particularly relevant, as these patterns may imply the presence of an underlying reason (i.e., learning difficulties) for the tendency of events to co-occur. Alternately, it is also possible that one event may influence the occurrence of another event outside of the youths' control.

The concept of stressful life events being patterned together offers significant psychometric and assessment implications. To accurately assess the nature of life events in youth, professionals must be careful not to separate events according to what a priori appears to be a negative or positive event. The pattern of events experienced, rather than a positive or negative appraisal, may be more significant in terms of the overall impact of life events.

The results of the EFA and CFA significantly contribute to the knowledge base concerning stressful life events in youth through confirming the existence of patterned life events and the tendency for specific life events to influence the occurrence of alternate life events. Areas of future research should include the revision or creation of measures of life events that take into account the changing nature of stress in youth. Additionally, the next study will further investigate the results of the CFA, due to the inconsistent fit indices. Although it is not a perfect model, it is a step in an important direction in the study of life events among youth.

REFERENCES

- Gothelf, D., Aharonovsky, O., Horesh, N., Carty, T., & Apter, A. (2004). Life events and personality factors in children and adolescents with obsessive-compulsive disorder and other anxiety disorders. *Comprehensive Psychiatry*, 45(3), 192-198.
- Johnson, J. H., & McCutcheon, S. (1980). Assessing life events in older children and adolescents. Preliminary findings with the Life Events Checklist. In G. Sarason & C.D. Spielberger (Eds.), *Stress and anxiety*. Washington, DC: Hemisphere.