



EXAMINING THE RELATIONSHIP BETWEEN LIFE SKILLS AND COPING CAPACITY AMONG ADOLESCENTS USING STRUCTURAL EQUATION MODELING

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ABSTRACT

Adolescence is a key time in growing up when people face a lot of stress from school, friends, and feelings, so the ability to cope is really important for keeping their mental health in check. The current research paper looks at how life skills relate to how well adolescents can handle stress and challenges, using a quantitative approach and Structural Equation Modeling. The study included 100 teenagers between the ages of 13 and 18 who completed a structured questionnaire. This questionnaire was designed to assess important life skills like making decisions, solving problems, controlling emotions, communicating effectively, managing stress, and how well they cope with challenges. To check if the measuring tools were reliable and accurate, we used Cronbach alpha, composite reliability, and confirmatory factor analysis. The structural model had good fit results, and the study found that life skills and coping ability are positively linked in a meaningful way. The results show that young people who have more life skills are better able to handle stress, tough times, and challenging situations in a positive way. The study shows how teaching life skills is important for preventing problems and promoting positive behavior, helping teenagers better handle stress and stay mentally strong. These results are important for teachers, people who make education policies, and mental health professionals when they create programs that can help teenagers feel better.

Keywords: Life Skills; Coping Capacity; Adolescents; Structural Equation Modeling; Psychological Resilience



1. INTRODUCTION

Adolescence is a pivotal development period, when the biological, psychological, and social changes are quick and deep and define the identity of an individual and guarantee his or her well-being in the future. In the interim stage, adolescents are becoming more vulnerable to diverse stressors as they emerge in academic pressures, peer pressure, interpersonal issues, emotional upheaval, and socioenvironmental pressures. These are stressors with the potential to greatly affect the mental wellness, behavioral adaptation and general life quality among adolescents. The ability to effectively manage these challenges which are often called coping capacity is a critical factor in influencing how adolescents cope with adversity, how they are able to manage their emotions and how they are able to have psychological strength to cope with stress.

The capacity to cope is never a fixed ability, but a dynamic system of skills and strategies which are capable of development and enhancement with time. Life skills have become of particular interest in this regard as among the psychosocial competencies that furnish teenagers with the means to help them deal with challenges in their daily lives. Life skills are a general concept of abilities and they include decision-making, problem-solving, effective communication skills, emotional controls, critical thinking skills and stress management. These competencies will help young people make wise decisions, manage feelings in a positive way, build positive relationships, and adjust to new realities. The international health and education models focus on life skills education as a preventive strategy and a promotive one because it has the potential to promote adaptive functioning of adolescents, to improve their psychological and long-term mental health.

Although the importance of life skills education has been increasing, empirical studies to determine the connection between life skills and coping capacity among adolescents have been relatively low, especially in developing and transitional settings where adolescents are likely to be affected by compounded social and environmental difficulties. In addition, a significant portion of current studies has paid attention to the use of traditional statistical approaches including correlation and regression analyses as a means of obtaining information, which do not necessarily capture the complexity, multidimensionality, and latency of the psychosocial constructs such as life skills and coping ability. The methods frequently do not take into



consider measurement error and cannot be used to study a number of different dimensions at the same time.

The SEM represents a powerful and holistic method of analysis that can overcome all these limitations through the simultaneous evaluation of both the measurement models and structural relationships between the latent variables. SEM enables the researcher to focus on direct and indirect impacts, test theoretical models, and determine construct validity in one integrated analysis. Through the use of SEM, researchers can have a better and more nuanced insight into how life skills assist in the coping ability and resilience of adolescents.

In this respect, the current paper aims at studying the association between life skills and coping capacity in adolescents through SEM. The research will contribute to the current literature on adolescence development and mental health by empirically verifying the routes by which life skills affect coping skills of adolescents. Besides, it is believed that the findings will be relevant to practical purposes among educators, policymakers and mental health practitioners to help in designing and implementing evidence-based interventions on life skills to support psychological resilience and wellbeing in adolescence.

1.1.Objectives of the Study

- To assess the level of life skills among adolescents across key psychosocial dimensions.
- To examine the coping capacity of adolescents in relation to stress, adversity, and difficult life situations.
- To analyze the structural relationship between life skills and coping capacity among adolescents using SEM.
- To identify the significant life skill dimensions that predict adolescents' coping capacity.

1.2.Life Skills as a Foundation for Effective Coping in Adolescence

Life skills refer to assemblage of psychosocial skills or competencies which enable individuals to deal with the needs and requirements of the day-to-day life. Their development is an especially important process during adolescence, when an individual must add to the existing academic load, social relations, emotional oscillations and identity problems. The life skills



may be considered to be the approach where the adolescents perceive the stressors, interpret the unpleasant circumstances, and respond to the adverse conditions.

Simple life skills such as self-awareness and emotional control would help the adolescents to know how they feel and can learn the source of stress that they experience. The fact that they can identify their emotions and attribute them accordingly helps adolescents to feel less overwhelmed, and they can also react to a greater degree which is balanced. They are also provided with emotional regulation facilitating them to contain powerful emotions such as anxiety, anger and frustration and consequently, reduce the impulsive reaction and promote a steady psychological condition during stressful situations.

Decision making is important as well as problem solving towards the process of ensuring effective coping. High problem solving skills among teenagers result in the problem based coping behaviours such as the capacity to put into perspective the stressful situations, brainstorm solutions and take positive action. Decision-making skills allow the adolescents to evaluate the consequences of their choices and select the most sufficient coping mechanisms and avoid maladaptive responses such as avoidance, denial or risk-taking.

The coping capacity of the adolescents which includes communication skills and empathy is also important as far as interpersonal skills are concerned. Communication assists the adolescents to discuss their concerns, seek and receive social support of peers, relatives, and teachers. Good relationships that are formed due to empathy and social consciousness are some of the preventive measures against stress and misfortune. The good interpersonal skills make young adults to seek social support as coping strategy hence enhancing emotional resilience.

1.3.Hypothesis Formulation

H1 (Research Hypothesis): Life skills have a significant positive effect on the coping capacity of adolescents.

H0 (Null Hypothesis): Life skills do **not** have a significant effect on the coping capacity of adolescents.



2. REVIEW OF LITERATURE

Fathiandastgerdi et al. (2016) used SEM to analyse the connection between self-efficacy, coping skills and substance use among adolescents. This research found that effective coping skills were positively related to higher levels of self-efficacy which was negatively correlated with substance use. The results have shown the protective effect of coping skills in lowering the engagement of adolescents in substance use and the need to strengthen psychosocial competency to achieve healthier behavioral outcomes.

Cherwick et al. (2016) examined the coping and resilience of young individuals who have experienced conflict using a SEM model. The findings have shown that adaptive coping strategies played an important role in resilience which helped adolescents to cope with stress and psychological distress caused by exposure to conflict and trauma. The research showed that coping strategies were largely instrumental in the buffer of negative environmental factors and highlighted the necessity of information on psychosocial interventions that would optimize coping and resilience among vulnerable adolescent groups.

Milas et al. (2021) examined the relationship between stress and coping mechanisms and life satisfaction in adolescents based on a national sample and SEM. The results indicated that the life satisfaction was negatively related to stress, and adaptive coping strategies mitigated the negative impact of stress on the well-being of adolescents. The research established that coping strategies were strong predictors of life satisfaction and had intricate indirect relationships in which stress affected the psychological outcomes of adolescents.

Kim et al. (2019) found out, using structural equation modeling (SEM), how resilience impacts health-related quality of life among teenagers dealing with chronic health issues. The results demonstrated that resilience significantly improved health-related quality of life, suggesting that adolescents with higher levels of resilience were better able to manage the psychological and physiological effects of long-term health conditions. The importance of resilience as a psychological resource for improving adolescents' health outcomes and well-being has been emphasized by studies.

3. RESEARCH METHODOLOGY

Research methodology offers systematic and scientific format of understanding a research problem and guarantees the reliability and validity of the results. Current study has chosen to utilize a structured quantitative design in the study to test the linkage between life skills and coping capacity in adolescents. To address the purpose of examining the relations between latent variables, SEM is the main technique of analysis that the study follows. In this section, the research design, population and sample, data collection instruments used, research procedures and statistical methods used to analyse data will be described.

3.1. Research Design

A quantitative cross-sectional study was used to examine the connection between teenagers' coping abilities and their life skills. Data was gathered at one point in time using a standardized questionnaire. Due of its emphasis on objective measurement and statistical analysis of inter-variable connections using SEM, this strategy was considered appropriate.

3.2. Population and Sample

The study population was made up of adolescents whose ages fell between 13-18 years and were in secondary and higher secondary schools. The selection of the total sample of 100 adolescents was done using stratified random sampling method to represent the gender as well as the educational levels.

3.3. Research Instruments

Data were collected using a structured questionnaire comprising three sections:

Section A: Demographic Information

In this part, we found questions about demographics including age, gender, socioeconomic status, and educational background.

Section B: Life Skills Scale

Ability to make sound decisions, solve complex problems, communicate clearly, control one's emotions, and deal with stress were all components of a standardized life skills assessment. A

five-point Likert scale was used to record the responses, with 1 representing Strongly Disagree and 5 representing Strongly Agree.

Section C: Coping Capacity Scale

Coping capacity was assessed using a validated coping scale designed to measure adolescents' ability to manage stress, adversity, and challenging situations. The scale included items related to emotional coping, problem-focused coping, and adaptive coping strategies, rated on the same five-point Likert scale.

3.4. Validity and Reliability of the Instrument

Content validity was done to provide the quality of the research instruments by having them evaluated by academicians and professionals in the field of psychology and education. CFA was used in construct validity.

The constructs were tested on their reliability by the Cronbach alpha and CR. The scales were found to have good internal consistency and all of them have good reliability values of above the recommended value of 0.70.

4. RESULT AND DISCUSSION

The above research utilized the use of quantitative statistical methods to evaluate the relationship between life skills and coping ability in adolescents. Statistical software was used to code and analyse data obtained on 100 respondents. The measurement and structural models were tested using SEM.

4.1. Descriptive Statistics

The study variables' central tendency and dispersion were examined using descriptive statistics. In Table 1, you can see the average and standard deviation values.

Table 1: Descriptive Statistics of Study Variables (N = 100)

Construct	Number of Items	Mean	Standard Deviation
Life Skills	20	3.76	0.59
Coping Capacity	15	3.62	0.64

Table 1 offers the descriptive statistics of the variables of the research, i.e. life skills and coping capacity, by answering the questions on 100 adolescents. The life skills ($M = 3.76$, $SD = 0.59$) demonstrate a moderately high level of life skills demonstrated by the respondents. Likewise, the average level of coping capacity ($M = 3.62$, $SD = 0.64$) indicates that coping with stress, adversity, and the difficult situations presented a fairly positive skill in adolescents. The values of standard deviation are rather small which indicates the limited variability of the responses in the form of a pattern that is common to all respondents.

4.2. Reliability Analysis

Using Cronbach's alpha and CR, we evaluated the measurement scales' internal consistency. Table 2 displays the results.

Table 2: Reliability Statistics

Construct	Cronbach's Alpha	CR
Life Skills	0.86	0.88
Coping Capacity	0.83	0.85

Table 2 Report indicates reliability analysis of the measurement scales which were used in the study. The Cronbach alpha of life skills ($\alpha = 0.86$) and coping capacity ($\alpha = 0.83$) were above the expected value of 0.70, which means that their internal consistency was high. Also, the construct reliability is also supported by the CR of life skills ($CR = 0.88$) and coping capacity ($CR = 0.85$). These findings indicate that the measures employed in the measurement of each construct were consistent and reliable to be further analyzed.

4.3. Measurement Model Assessment (Confirmatory Factor Analysis)

CFA was to determine whether the measurement model was sufficient. We looked at convergent validity, factor loadings, and actual variance explained.

Table 3: Convergent Validity Results

Construct	Factor Loadings Range	AVE
Life Skills	0.61 – 0.82	0.54
Coping Capacity	0.58 – 0.79	0.52

Table 3 shows the findings of the convergent validity examination with the CFA. The loading of life skills fell within the range of 0.61 to 0.82 whereas the loading of coping capacity fell within the range of 0.58 to 0.79 all above the required amount of 0.50. The values of the AVE (0.54) and coping capacity (0.52) were larger than the suggested thresholds (0.50) and this fact has validated sufficient convergent validity. This means that the items were suitable to reflect their respective latent constructs.

4.4. Discriminant Validity

The Fornell-Larcker criterion was used to evaluate discriminant validity. Each construct's square root of AVE was higher than the correlation between them.

Table 4: Discriminant Validity Matrix

Construct	Life Skills	Coping Capacity
Life Skills	0.73	
Coping Capacity	0.58	0.72

Table 4 provides the findings of the discriminant validity test using the Fornell-Larcker cutoff. Life skills and coping ability had a bigger square root AVE of 0.73 and 0.72, respectively, than the two constructs' correlation of 0.58. What this means is that different constructs measured distinct notions and had different empirical foundations. Discriminant validity was thus adequately demonstrated for the measurement model.

4.5. Structural Model Analysis

Following the validation of the measuring model, the structural model was put to the test in order to investigate the proposed correlation between coping abilities and life skills.

Table 5: Structural Path Coefficient

Hypothesis	Path	Standardized β	t-value	p-value	Result
H1	Life Skills → Coping Capacity	0.59	5.87	<0.001	Accepted

Table 5 displays the results of the tests conducted using the structural model to examine the hypothesis regarding the correlation between coping capacity and life skills. Life skills and coping capacity have a positive and statistically significant standardized path coefficient (=0.59), as shown by the t-value of 5.87 and the p-value of less than 0.001. This finding lends credence to the first hypothesis and demonstrates that teenagers' coping abilities were significantly improved by having a wider range of life skills.

4.6. Model Fit Indices

As shown in Table 6, the structural model's goodness-of-fit was assessed using different fit indices.

Table 6: Model Fit Indices

Fit Index	Recommended Value	Obtained Value
χ^2/df	< 3.00	2.21
CFI	> 0.90	0.92
TLI	> 0.90	0.91
GFI	> 0.90	0.90
RMSEA	< 0.08	0.061

Table 6 delivers data on the structural model's goodness-of-fit. A chi-square-to-degrees-of-freedom ratio of 2.21 divided by 2.21 degrees of freedom is below the permissible threshold of 3.00. At 0.92, 0.91, and 0.90, respectively, the Goodness-of-Fit Index (GFI), the Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI) all exceeded the suggested value of 0.90. As



an additional point, the RMSEA value of 0.061 was below the permissible threshold of 0.08. All of these metrics point to the suggested structural model fitting the data well.

CONCLUSION

The current research explored the connection between life skills and coping capacity in adolescents through the quantitative method and Structural Equation Modelling, and the results of the study were highly empirical evidence of the fact that life skills play a significant role in increasing the ability of adolescents to cope with stress, adversity, and difficult life conditions. The findings illustrated the positive and significant correlation between life skills and coping capacity, which means that adolescents who exhibit high scores on their life skills like decision-making, problem-solving, emotional regulation, communication, and stress management have high adaptive coping skills. The measured measurement and structural models demonstrated reasonable reliability, validity, and goodness-of-fit measure indicating that the model is strong despite having a smaller sample size. These observations show the significance of life skills as key psychosocial assets that lead to resilience and psychological health in adolescence. In a practical sense, the research highlights the necessity of implementing structured training in life skills in schools and adolescent development programs as one of the preventive and promotional measures to enhance coping ability and mental health.

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