Does Career Adaptability Serve as a Mediator between Optimism and Life Satisfaction?

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Abstract

Higher education is a transition period between the world of education and the world of work. During this period, undergraduate students experience various life problems related to the future and feelings of uncertainty in life, giving rise to worry and discomfort in life. This condition can affect undergraduate student life satisfaction. The objective of this study was to investigate the effect optimism on life satisfaction through the mediation of career adaptability in undergraduate students. The participants of this research were 250 undergraduate students (L=63, P=187), with a mean of 20.36. We used a convenience sampling technique to select the participants. The instruments used were CAAS (24 items; α = .94), SWLS 5 items; α = .88), and SOM (7 items; α = .78). The results of the analysis show that the indirect effect of optimism to life satisfaction through career adaptability (loading factor=.06, t-value=1.23), t-value≤1.96, was not significant. This means the hypothesis was not supported. Career adaptability does not serve as an intermediary in the correlation between optimism and life satisfaction. However, the findings in this study does highlight that optimism has a significant effect on career adaptability and life satisfaction. Thus, to increase optimism in undergraduate students, improving their ability to face various career challenges and increase life satisfaction is highly recommended.

Keywords: *career adaptability, life satisfaction, optimism, undergraduate student*

Introduction

Emerging adulthood is a transitional phase that begins at age 18-20 and peaks at 20-25. In emerging adulthood, individuals start to think about responsibility and search for their own identity (Arnett, 2000). On average, undergraduate students in Indonesia are 18-23 years old; this is the period of emerging adulthood. During the transition period, undergraduate students must be adaptive and skillful (Murphy et al., 2010). This emphasizes that undergraduate students must start preparing for their careers when they start college. If students have chosen a future career by then, they could obtain the specific education and skills needed to excel in their chosen path. Individuals are

expected to have thought of various career alternatives, gathered relevant information, developed skills, and prepared for their careers at that stage (Santrock, 2014).

In 2020, several companies decided to postpone or reduce the recruitment of new graduates. Employment instability, economic crises and inflation in various countries have also caused drastic changes in the world of work. This makes new graduates have to compete with new workers and experienced workers (Employers, 2020). It was further explained that currently there is very rapid social and technological change, resulting in the risk of unemployment, social inequality, and feelings of insecurity in the younger generation (Magnano, et., al, 2021). As a result, careers have become unpredictable, and today's world of work is difficult to define. This creates significant challenges for individuals in preparing for careers and coping with career transitions (Savickas et al., 2009). Another phenomenon is that many final year undergraduate students were still unsure about their career paths (Qamaria & Astuti, 2021). These various conditions make students who are preparing for their careers feel uncertain about the future, giving rise to worry and discomfort in life. This condition can affect the life satisfaction of undergraduate students. The research results found that the presence of stressful life events influenced undergraduate students' life satisfaction (Liu, et. al, 2022). The results of research in Indonesia found that undergraduates students had life satisfaction in the low and medium categories. Undergraduate students tend to have anxiety, fear, self-dissatisfaction and are less adaptive to the problems they face (Dewanti & Ayriza, 2021). It was elaborated that undergraduates are in a phase of uncertainty regarding their future plans, continuously adapting their life goals, making their life satisfaction notably fragile and unstable (Karatzias, et. al, 2013).

Life satisfaction has an important role in undergraduate students. Previous research shows that undergraduate students who have high life satisfaction have advantages in relation to academic performance, academic engagement, academic self-efficacy and approach-oriented achievement goals (Dewanti & Ayriza, 2021; Sany et al., 2021; Liu et al., 2022). Research results also show that undergraduate students who have high life satisfaction obtain a high Grade Point Average (GPA) compared to students who are less satisfied with their lives (Antaramian, 2017). The results of other research on students in Iran found that life satisfaction was the strongest variable to predict undergraduate students' quality of life (Sany et al., 2021).

Based on the phenomenon above, one of the problems related to student life satisfaction is due to demands during career preparation. The life design (LD) approach has been widely developed as a career counselling effort (Savickas et al., 2009). This approach discusses work, careers, and various inhibiting factors caused by economic conditions, global influences, and technological changes. The LD paradigm extends models of human and environmental alignment and development from the 20th century by concentrating on how individuals adapt, regulate, and shape their self-identity (Savickas et al., 2009). LD suggests that individuals need to get support in building a career to anticipate things that happen during the career transition period. This support is very important and necessary to foster hope and optimism to achieve a bright future and a fulfilling life (Santilli et al., 2017).

Career adaptability, within the scope of the career construction theory (CCT), encompasses the manner in which individuals shape and construct their careers. Career adaptability specifically discusses how individuals face various new demands in the world of work by using their vocational personality. The sequence of changes in adaptation is divided into four: adaptive readiness, adaptability resources, adapting responses, and adaptation results (Savickas, 2013; Johnston, 2016; Rudolph et al., 2017; Rudolph et al., 2019). Several studies examining career adaptability state that career adaptability is a self-regulatory capacity and psychosocial trait and uses career adaptability as a mediator (Johnston, 2016). Based on this, this study places career adaptability as a mediator variable. The objective of this study was to investigate the effect optimism on life satisfaction through the mediation of career adaptability in undergraduate students.

Career adaptability is individuals' ability to prepare themselves to face various challenges in work situations, including unexpected changes in working conditions. Individuals can be actively involved in fulfilling work-related tasks and preparing for future careers. Career adaptability is considered necessary for individuals to successfully adapt in a workplace and achieve personal success (Savickas & Porfeli, 2012). Individuals with high career adaptability are more likely to project themselves into the future, encounter fewer career obstacles, and realize career goals (Soresi et al., 2012). Meanwhile, low career adaptability could result in someone obtaining a low-quality job (Koen et al., 2010).

Optimism is one of the predictors of career adaptability (Hirschi, 2009). Optimistic people tend to have higher levels of career adaptability and have more initiative to focus and explore future career

options (Buyukgoze-Kavas, 2016). Optimism is a person's dispositional tendency to have optimistic expectations despite being in a difficult situation. Optimism allows individuals to maintain confidence in facing job challenges and career planning tasks (Tolentino et al., 2014). It was further explained that optimism encourages individuals to be more prepared for their careers by being aware of various tasks related to their profession and changes in the work they will face, including making short- and long-term decisions (Savickas, 2013). Optimistic people often show readiness to respond to and successfully face obstacles in their careers (Tolentino et al., 2014). Several studies have found that optimism is correlated with career adaptability (Wilkins et al., 2014; Sulistiani & Rahmania, 2021).

Optimism is described as an individual's mindset or tendency to view various events and situations positively (Santili, et., al. 2017). Optimism is a concept related to motivation and strategies to achieve future goals (Vehkakoski, 2020). Optimism is expected to be felt by individuals with an interpretation of what will happen and a general assessment of their life to show good judgment and satisfaction (Schweizer et al., 1999). Several studies on undergraduate students found that optimism is related to life satisfaction (Sany et al., 2021). The research results show that optimism is a significant predictor of life satisfaction. People who are optimistic about the future will be happier and have better life satisfaction compared to people who are not optimistic (Yalçın, 2011). Quevedo & Abella (2010) also revealed that optimism can increase life satisfaction. Bailey & Snyder (2007) argue that in recent years, optimism has received a lot of attention, which is closely related to life satisfaction.

High career adaptability leads to better performance, greater career success and happiness, and higher life satisfaction for individuals (Ng et al., 2020). Successful adaptation to life related to school, work, and family is associated with high levels of life satisfaction (Rogowska et al., 2021). Many previous studies link career adaptabilities with life satisfaction, such as in Hirschi's (2009) research on adolescents. The study found that high career adaptability can predict high life satisfaction. In other research, Ginevra et al. (2018) found that career adaptability is indirectly correlated with life satisfaction. Individuals with high career adaptability will feel more satisfied with their lives because they are confident about their future. However, the examination of career adaptability as a mediator for optimism and life satisfaction is not widespread, particularly in samples from Indonesia. Consequently, there is an urgent need to investigate the impact of

optimism on life satisfaction, with career adaptability serving as a mediating factor. The hypothesis of this research is:

- *Career adaptability is a significant mediator of the optimism and life satisfaction*
- *Optimism has positive relationship with life satisfaction*
- *Optimism has positive relationship with career adaptability*

Method

Participants

This research involved 250 undergraduate students in Indonesia from the Faculty of Social and Political Sciences (3.2%), Faculty of Economics (0.4%), Faculty of Medicine (31.6%), Faculty of Biology (0.4%), Faculty of Psychology (63.6%), Faculty of Sociology (0.4%), and Faculty of Engineering (0.4%). The sample in this study consisted of 25.2% male and 74.8% female, with a mean age of 20.36.

Measurement

State Optimism Measure (SOM)

Optimism is measured using the State Optimism Measure (SOM), which was developed by Millstein et al. (2019) and has been translated into Indonesian by Sulistiani & Rahmania (2021). The SOM consists 7 items; e.g., "I am feeling optimistic about life's challenges", "I am feeling optimistic about my future", "The future is looking bright to me". This measurement tool is a 5-point Likert scale with responses ranging from strongly disagree (1) to strongly agree (5). The internal consistency in current study was .780.

Career Adapt-Abilities Scale-Indonesian Form (CAAS)

Career adaptability is measured using the Career Adapt-Abilities Scale (CAAS) by Savickas & Porfeli (2012), which has been adapted to Indonesian by Sulistiani et al. (2019). It consists of 24 items of four different subscales: concern, control, curiosity, and confidence. A sample item for concern subscale is "Thinking about what my future will be like". A sample item for control subscale is "Making decisions by myself". A sample for curiosity subscale is "Exploring my surroundings". A sample for confidence is "Taking care to do things well" Each item uses 5-point Likert-scale, ranging from 1 (not strong at all) to 5 (most strong). The subscales have good reliability as follows: concern

(α = .862), control (α = .795), curiosity (α = .875), and confidence (α = .866).

Satisfaction with Life Scale

Life Satisfaction was measured using The Satisfaction with life scale (SWLS) by Diener et al. (1985), which has been adapted to Indonesian by Muttaqin et al. (2020). It comprises five items; e.g., "In most ways my life is close to my ideal", "The conditions of my life are excellent". "I am satisfied with my life". Each item uses a Likert Scale format, varying from strongly disagree (1) to strongly agree (7). The internal consistency in current study was .880.

Procedure

Data were collected using questionnaires through an online survey. Before the data collection, we informed participants of the study objective. Those who willingly agreed to participate in this research were then asked to complete informed consent. It takes approximately 20-30 minutes to complete the questionnaire.

Data Analysis

SPPS 22 obtains descriptive data, product moment correlation test, and Cronbach's Alpha coefficient. There are various ways to examine mediation analysis (MacKinnon, 2012). Before we tested the hypothesis, we evaluated the goodness of fit of the measurement model using Confirmatory Factor Analysis (CFA). At the initial stage, the goodness of fit is determined based on several indicators. First, we can determine the fit by considering the standardized (loading) estimation value, also known as the validity coefficient. A measurement model is considered good when, in a sample size of 250, it yields a standardized loading of .35 and above (Hair et al., 2014). Other than that, several other indicators are also used to assess a model's fit. The indicator used as a guide in this study refers to the norm specified by Hu & Bentler (1999), namely the Chi-square value is expected to be small, *p-value* < .05; Root Mean Square Error of Approximation (RMSEA) 0.08; Comparative Fit Index (CFI) .9; and Root Mean Residual (RMR) .08. According to Duane Brown (2002), RMSEA < .09 is still an acceptable threshold in a smaller sample; for SRMR, values less than .08 are generally considered suitable.

Next, we evaluated the suitability of the hypothesis model (i.e., the relationship between optimism, career adaptability, and life satisfaction) using the Structural Equation Modelling (SEM). We tested

the structural equation model using maximum like hood estimates, evaluating the same fit index. Both the CFA and SEM analysis were performed on the Lisrel 8.7. software.

Result

Descriptive Statistics and Correlations

Table 1 depicts the result of the descriptive and correlation analysis. From 250 research samples, the following average score (*M*) of each variable was recorded: optimism (*M*= 31.27), career adaptability (*M*= 101.7), and life satisfaction (*M*= 24.88).

Table 1.

Means, SD, correlation coefficients, and Cronbach's alpha of the study variables (N = 250).

	M	SD	α	1	2	3	4	5	6	7
1. Optimism	31.27	3.26	.79							
2. CAAS	101.7	12.34	.94	.56**						
3. Concern	26.38	3.40	.84	.49**	.81**					
4. Control	25.19	3.64	.81	.54**	.85**	.56**				
5. Curiosity	45.89	6.97	.85	.41**	.88**	.63**	.65**			
6. Confidence	25.23	3.59	.85	.49**	.88**	.60**	.67**	.72**		
7. SWLS	24.88	6.20	.88	.42**	.31**	.25**	.35**	.22**	.27**	

Note. *M*=Means; *SD*=Standard Deviation; α=Cronbach's alpha reliability coefficients; CAAS=Career Adapt-Abilities Scale; SWLS=Satisfaction with life scale; SOM=State Optimism Measure; ** p < .01.

We conducted a Pearson correlation test to examine the relationship between the research variables. Table 1 also shows the result of the correlation test between optimism, career adaptability, and life satisfaction. Our findings reveal a significant positive correlation between life satisfaction and the independent variables. Similarly, a significant positive correlation was also found between the career adaptability subscale and the other variables. The results show that optimism correlates with career adaptability. More specifically, the control dimension (.54) had the highest correlation with optimism compared to other dimensions of career adaptability. Career adaptability correlates with life satisfaction, and the control dimension (.35) has the highest correlation with life satisfaction compared to other dimensions of career adaptability. Overall, the dimensions of career adaptability correlate with optimism and life satisfaction. The

following depicts the results of the Skewness and kurtosis calculation from the distribution of total scores and research dimensions: Skewness scores between -1.218 and -.551; the kurtosis value is between -.551 and 1.863.

Distribution of respondents' level of optimism, career adaptability, & life satisfaction

Table 2 shows the descriptive analysis of respondents' level of optimism, career adaptability, and life satisfaction distribution. The results show that most students have optimism in the high (67.6%) and moderate category (28%). Only a small number of students have a low-level of optimism (4.4%). Similar findings were also found for career adaptability where the distribution was as followed: high (86.8%), moderate (12.8%), and low category (4%). Meanwhile, no students with low-level of life satisfaction were recorded. Students' level of live satisfaction was categorized into either high (97.2%) or moderate category (2.8%).

Table 2.

Frequency distribution of respondents' level of optimism, career adaptability, & life satisfaction

Category	Number of respondents (%)		
	Optimism	Career adaptability	Life Satisfaction
Low	11 (4.4%)	1 (.4%)	0
Moderate	70 (28%)	12.8 (12.8%)	7 (2.8%)
High	169 (67.6%)	217 (86.8%)	243 (97.2%)

Gender Differences

We compared the difference in optimism, career adaptability, and life satisfaction based on gender using the Mann-Whitney U test (see Table 3). The finding shows no significant difference in optimism, career adaptability, and life satisfaction between male and female undergraduate students.

Table 3.

Gender Differences

		Male (63)	Female (187)	p < .05
		Mean Rank	Mean Rank	
1.	Optimism	126.59	122.27	.679
2.	CAAS	123.67	130.92	.491
3.	Life Satisfaction	124.49	128.48	.704

Confirmatory Factor Analysis

We assessed the properties of the measurement model using the Lisrel 8.70 software before testing it on the structural model. The CFA of the optimism measurement model yielded a fit model with the following calculation results: χ^2 = 98.74, df = 14, p-value = .0000 (p < .05); RMSEA = .156 (< .08); CFI = .94 (> .90); NFI = .93 (> .90); RMR= .28 (< .08). The value of loading factor = .64 - .79 (< .4), t-value = 10.91–15.15 (> 1.96). The CFA result for the CAAS measurement model shows the fit model with the following calculation results: χ^2 = 320.62, df = 248, p-value = .00128 (p < .05); RMSEA = .034 (< 0.08); CFI = 1.00 (> .90); NFI = .98 (> .90); RMR= .096 (< .08). Loading factor = .61 - .84 (< .4), t-value = 9.40 – 16.63 (> 1.96). Lastly, the CFA results for the life satisfaction measurement model show the fit model with the following calculation results: χ^2 = 9.08, df = 5, p-value = .10579 (p < .05); RMSEA = .057 (< .08); CFI = 1.00 (> .90); NFI = .99 (> .90); RMR= .094 (< .08). Loading factor = .65 - .90 (< .4), t-value = 12.31 – 44.29 (> 1.96).
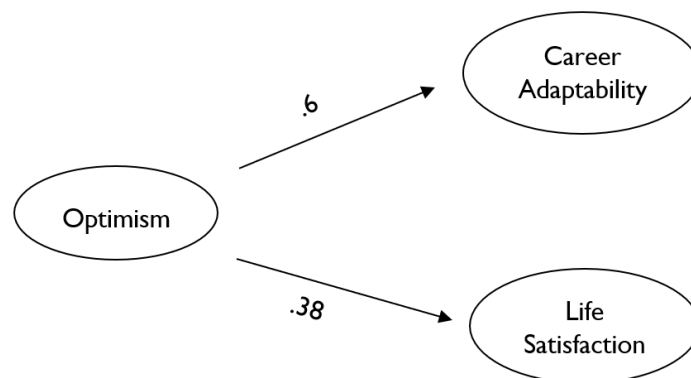

Figure 1. Structural Equation Modeling. Only significant paths are shown in figure

SEM analysis was conducted on three latent variables, consisting of one exogenous variable (i.e., optimism) and two endogenous variables (i.e., life satisfaction and career adaptability) (Figure 1). The structural equation model tests the following hypothesis: career adaptability is a mediator variable between optimism and life satisfaction. The results of the theoretical model analysis show the fit model with the goodness of fit criteria, χ^2=22.66, df=8, *p-value*=.00383 (*p*<.05), RMSEA=0.086 (< 0.08), CFI=.98 (<.90), NFI=.98 (.90). The results of the direct effects of optimism to career adaptability (loading factor=0.6, t-value=8.46) were significant. The direct effects of optimism to life satisfaction (loading factor=.38, t-value=5.08) were significant. The direct effects of career adaptability to life satisfaction (loading factor=0.10, t-value=1.24) was not significant. The indirect effect of optimism to life satisfaction through career adaptability (loading factor=.06, t-value=1.23), t-value≤1.96, was not significant. This means the hypothesis was not supported.

The findings show that optimism significantly positively affects career adaptability. This means undergraduate students with higher optimism tend to have higher career adaptability. Additionally, we also found that optimism has a significant positive effect on life satisfaction. The finding suggests that undergraduate students who feel optimistic about the future are relatively more satisfied with their lives. However, we found no significant effect of career adaptability on life satisfaction, indicating that career adaptability cannot mediate between optimism and life satisfaction. In other words, although high optimism could increase career adaptability, the latter cannot affect life satisfaction. Based on the statistical calculations and theoretical analysis above, it can be concluded that career adaptability cannot mediate the relationship between optimism and life satisfaction.

Discussion

Our findings highlight that most undergraduate students' level of career adaptability falls within the high category. This result is in line with past studies that similarly examined students (Afifah & Salim, 2020; Sulistiani & Rahmania, 2021; Lakshmi & Elmartha, 2022). Most students in this study also have high-level optimism, supported by previous research (Cahyawulan & Wahyuni, 2021). Similarly, undergraduate students also recorded a high level of life satisfaction. Hayes & Weathington (2007) highlighted in their study that individuals with a high level of optimism are typically more confident of their abilities, increasing their level of life satisfaction. Thus, that past study could partly explain why undergraduate students could have high levels of optimism and life satisfaction.

We found no significant difference in undergraduate students' optimism, career adaptability, and life satisfaction based on gender. The findings in this study, which showed no significant difference in career adaptability with gender, were consistent with the results of previous studies. Previous studies in various countries found no gender differences in student career adaptability (Rottinghaus et al., 2005). According to Ghosh et al. (2019), this may be because, in the current development, there is no difference in the way of thinking between male and female students, which could affect their adaptive behavior.

The study's findings reveal that most participants have high optimism. Current research shows that there is no significant difference between optimism and gender. This study's results are consistent with previous studies (Perdhana, 2022); Singh & Mishra, 2014). According to Primardi & Hadjam (2011), optimism is not determined by gender but by how individuals can positively address problems. Furthermore, Schwaba et al. (2019) explained that the development of optimism between men and women did not show any difference. Optimism is a soft construct that affects a person's experience and is influenced by experiences such as aging and life events.

This study's findings show that most respondents have high level of life satisfaction. We also found no significant difference in the level of undergraduate students' life satisfaction based on gender. Rogowska et al. (2021), who conducted a study on undergraduate students in Germany, also discovered no difference in life satisfaction for students. According to Eddington & Shuman (2005), life satisfaction between men and women shows no differences, due to a shift in traditional sex roles between men and women. Previously male characters were called "masculinity" shifted to "agency", and female characters previously called "femininity" shifted to "communion". Communion characteristics includes such as warmth, concern for others, nurturing, and understanding. Agency characteristics includes independence, confidence, and assertiveness. These new terms are preferred over the old ones because they recognize that a male or a female can have a range of characteristics. Men and women with a higher "agency" character will have high life satisfaction and vice versa. According to Forest (1996), the cause of the absence of differences in life satisfaction between men and women is not a matter of gender but how individuals respond to their lives.

According to the career construction theory (CCT) and life design (LD) approach, this research aimed to examine the role of career adaptability as a mediator between optimism and life satisfaction

in undergraduate students. The results show that career adaptability does not necessarily mediate between optimism and life satisfaction. However, this study found that optimism significantly affected career adaptability and life satisfaction. The findings in this study which stated that optimism was affected by carrier adaptability, were also found from several previous studies (Wilkins et al., 2014; Tolentino et al., 2014; Fang et al., 2018) Rottinghaus et al., 2005). College students with high optimism and career adaptability were more comfortable to be involved in education and career planning activities. Optimistic people are more adaptive, focused on their future, and confident in facing adversity (Rottinghaus et al., 2005). In addition, optimism also encourages individuals to have positive expectations to allow them to be more flexible in responding to new and uncertain situations. People who are optimistic about the future can face career obstacles and carry out career planning tasks (Tolentino et al., 2014). Furthermore, Seligman (2002) states that optimistic people will have the ability to think optimistically when facing challenges and would have the confidence that good things will last a long time.

The findings in this research also found a significant effect of optimism on life satisfaction. This study's results align with research conducted by Rezaei & Bahadori (2018), which found a significant positive relationship between optimism and life satisfaction. Furthermore, Chang et al. (2003) and Karademas (2006) reported a correlation between optimism and life satisfaction. Someone who has high optimism and self-confidence will evaluate their life more positively. This will make the individual more enthusiastic and tenacious in facing life's obstacles, believing everything can go well even though it is not perfect. Additionally, those individuals would have higher acceptance of their life, be happier, and more willing to develop themselves. According to Diener et al. (1985) underdeveloped optimism will cause people to be fearful and behave more monotonously, reducing life satisfaction. If an individual can exercise optimism when determining their career, it could increase their life satisfaction. Furthermore, Pavot & Diener (1993) stated that life satisfaction is a cognitive assessment process. It can be said that satisfaction, defined as an estimate of individual satisfaction globally, is one of the main factors influencing personal well-being.

New findings in this research indicate that there was no direct effects of career adaptability on life satisfaction in undergraduate students. The results of this research contradict previous research, which found that career adaptability directly affects life satisfaction (Zeng et al., 2022; Santilli et al., 2014). The findings in previous studies that are in accordance with the results of this study were found in the research of Ghosh et al. (2019). They found no direct effect of career adaptability on

academic satisfaction. The absence of this influence may be due to the different understanding of the research subjects on the statement items in life satisfaction with career preparation. The research of Ng et al. (2020) found that career adaptability was not directly related to life satisfaction. Research findings show that the ability of career adaptability is not enough to produce life satisfaction for workers in Malaysia.

Limitation study

This research has several limitations that may be of concern for future research. First, data collection in this study used a scale filled in by respondents or self-report, this can cause biased results. Second, the subjects in this research were dominated by female undergraduate students so that the ratio of female undergraduate students was greater than male students. Third, this research was a cross-sectional study so that the research results were only temporary and a causal relationship cannot be obtained. Longitudinal research could see the influence of optimism on life satisfaction so that interventions could be designed to increase life satisfaction in undergraduate students.

Conclusion

The research model that connects the variables of optimism, career adaptability, and life satisfaction shows a fit model with research data. The results of the study found that career adaptability cannot act as a mediator between optimism and career adaptability. This study's findings are that undergraduate students' optimism significantly affects career adaptability and life satisfaction. Undergraduate students who feel optimistic about the future would have higher life satisfaction. Likewise, undergraduate students who feel optimistic about the future will be able to face various challenges and crises related to future career preparation. The findings in this research can have implications for seeking interventions to increase undergraduate students' optimism, allowing them to better adapt to various challenges during career preparation. In addition, an increase in optimism is expected to increase undergraduate students' life satisfaction.

Acknowledgments

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