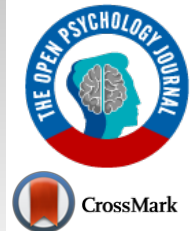




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## RESEARCH ARTICLE

### Parental Autonomy Support and Psychological Well-Being in University Students During the COVID-19 Pandemic: The Role of Autonomy Satisfaction

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#### Abstract:

#### Background:

University students, as emerging adults, have autonomy as one of their central developmental tasks. Parents need to provide an autonomy-supportive environment to encourage students to act based on their volition, benefiting their psychological well-being. This study aims to explore the effect of parental autonomy support on psychological well-being by the mediation of autonomy satisfaction.

#### Methods:

227 university students in Indonesia (21.6% male, 78.4% female) aged 18-24 years old ( $M = 20.73$ ;  $SD = 0.93$ ) participated in the study and completed an online survey. We used three validated Indonesian version questionnaires: Parental Autonomy Support, Basic Psychological Needs Satisfaction and Frustration, and Psychological Well-Being.

#### Results:

The result shows that autonomy satisfaction fully mediated the relationship between parental autonomy support and psychological well-being.

#### Conclusion:

This finding supported the self-determination theory framework and implied the importance of parental autonomy support in enhancing university students' psychological well-being, especially in pandemic situations.

**Keywords:** Parental autonomy support, Autonomy satisfaction, Psychological well-being, University students, COVID-19, Pandemic.

#### Article History

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## 1. INTRODUCTION

University students, generally in the age range of 18-25 years old, are identified as emerging adults, a developmental period of the life span between adolescence and young adulthood [1]. One of the notable markers in this transition to adulthood is leaving the parental home to pursue higher education [2, 3]. In Indonesia, individuals who live in other areas to pursue higher education are called migrant students. They face various dynamics in becoming independent, ranging from problem-solving, and taking care of themselves to managing their own needs [4]. By living independently,

university students get the opportunity to fulfill a central developmental task of emerging adults within themselves, which is autonomy. However, an outbreak hinders this fulfillment, forcing these emerging adults to adapt to a new lifestyle.

At the end of 2019, a new virus identified as Sars-Cov-2 emerged in Wuhan, China. It caused a disease called COVID-19 with the common symptoms of fever, cough, myalgia, and fatigue [5]. This virus has spread rapidly to more than 200 countries worldwide, which was then declared a global pandemic by WHO on March 11, 2020 [6, 7]. The pandemic led individuals to experience various psychological, social, and financial problems, including loneliness, less time with friends, and unemployment [8, 9].

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One of many interventions implemented to prevent the spread of the virus is physical distancing in public places closures, mass gathering restrictions, and lockdowns [10]. Due to this regulation, students worldwide have not been able to continue learning in schools, universities, or any other institutions [11]. This indicates the disruption of educational activities, as school closures led to switching from face-to-face to online learning delivery and the implementation of new assessment methods [12, 13]. In Indonesia, the first case of COVID-19 was reported on March 2, 2020 [14], and the number of infected people continues to spread significantly. The government also prohibited educational institutions (such as universities) from holding offline classes and encouraged the implementation of online classes (study from home) as an alternative [15 - 17]. This results in many university students returning to their hometowns because they no longer need to go to campus to attend classes. Unfortunately, during this COVID-19 period, families are not in a conducive situation to deal with the fact that their children have to learn from home. Many parents in Indonesia were actually in a situation of anxiety regarding their personal health and economic conditions, children's education, welfare, crime, and personal rights [18]. The acute psychological challenges posed by COVID-19 can potentially make changes in familial well-being domains, where the family dynamic could turn into supportive or self-centered [19].

On returning home, most university students live together with their families again as they previously had developed autonomy by living independently in another area. Self-Determination Theory (SDT) considers autonomy one of three basic universal psychological needs, including competence and the need for relatedness [20]. Need is a psychological nutrient essential for individuals' adjustment, integrity, and growth [21]. Autonomy refers to the experience of volition and willingness; relatedness is the experience of warmth, bonding, and care. Competence is related to the experience of effectiveness and mastery. Each need could be satisfied or frustrated. When the need for autonomy is frustrated, one experiences feeling pushed in an unwanted direction. Relatedness frustration is felt as social alienation and loneliness, and competence frustration leads to failure and helplessness experience [22]. The satisfaction of those three basic psychological needs plays a critical role in individuals' well-being, while frustration is associated with malfunctioning. This pattern also applies across cultures [23], and it was argued that autonomy is the most controversial need cross-culturally [24], the satisfaction tends to be more highly valued in individualistic countries than in collectivistic ones [25, 26].

SDT also states that authority figures, such as parents, are one of the social contexts that determine the satisfaction or frustration of individuals' needs [20]. University students as emerging adults are known to have a desire to gain more autonomy from their parents [27], and parents have an important task in supporting their children's autonomy regulation [28]. Therefore, parents need to provide autonomy support to university students who return to live with them at

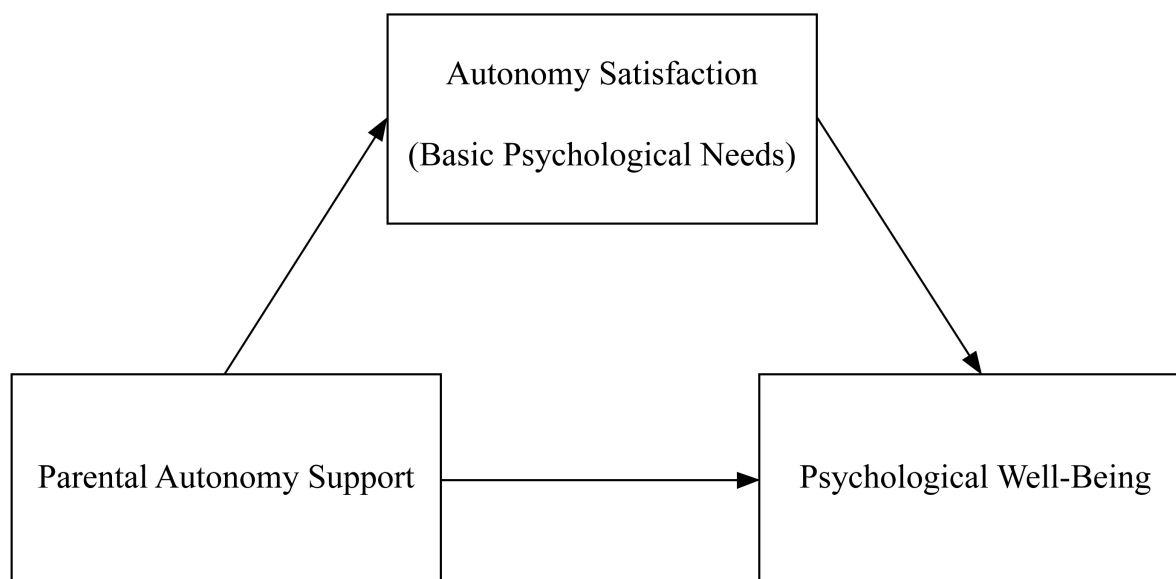
home caused by the COVID-19 regulation. Autonomy support given by parents to their children is known as parental autonomy support, defined as the encouragement of individuals' enactment upon their true personal interests and values [28].

Based on self-determination theory (SDT) 's view of autonomy, it is more suitable to operationalize parental autonomy support as parental promotion of volitional functioning (PVF). PVF is defined as a characteristic of parents who are empathetic to their child's perspective, provide choices to their children whenever possible, minimize the use of control and power assertions, and help their offspring to explore and act upon their true personal values and interests [29, 30]. Parents who implement the PVF do not imply that their children as emerging adults have to make decisions without their assistance but instead actively assist them in their decision-making. This practice leads emerging adults to act on their own volition [31]. By receiving volitional functioning support from their parents, emerging adults can act according to their desires, which in turn can improve their psychological well-being [22, 32].

Psychological well-being is defined as the individual's perception that life is well and satisfactory lived, and that the individual is aware of their right potential development [33]. Psychological well-being plays an important role for university students as it refers to their feelings in living their lives and helps them achieve optimal development in their lives [34, 35]. It consists of six distinct dimensions, namely environmental mastery (the ability to control an individual's life and the surrounding world effectively), self-acceptance (positive assessment of oneself and the individual's past life), purpose in life (the belief that an individual's life is purpose-driven and meaningful), autonomy (a sense of self-determination), personal growth (a sense of relentless growth and development as an individual), and positive relations with others (connectedness with others) [33].

By identifying the importance of psychological well-being for university students, parents have to pay attention to the level of psychological well-being of their children. Even greater attention should be paid to these university students during this COVID-19 pandemic, as they were found to have low levels of psychological well-being based on previous studies [36, 37]. It was known that family plays a key role in the emerging adult's psychological well-being [36]. Another determinant of well-being is conceptualized in SDT. It states that individuals have basic psychological needs that have to be satisfied to experience an ongoing sense of well-being, one of which is the need for autonomy [22].

The relationship between autonomy support, autonomy satisfaction, and psychological well-being has been established. It has been reported that autonomy satisfaction mediates the relationship between autonomy support and psychological well-being. However, those studies mostly involved autonomy support from social contexts outside families, such as instructor-students [38], teaching assistant-students [39], coach-athletes [40 - 42], and supervisor-employees [43].



**Fig. (1).** Conceptual framework.

However, only a little attention has been given to examining the role of autonomy satisfaction as a mediator between parental autonomy support and psychological well-being. One study on this issue was conducted on Malawian university students, which found that autonomy satisfaction fully mediated the relationship between parental autonomy support and psychological wellbeing. The research was conducted before the emergence of the COVID-19 outbreak. The changing situation due to COVID-19 regulation forces university students to return to their families and have limited direct social interaction with their teachers and peers. This condition makes face-to-face relationships only limited to family members. Therefore, we aim to examine whether autonomy satisfaction mediates the effect of parental autonomy support and psychological well-being in the COVID-19 pandemic. The conceptual framework is visualized in Fig. (1).

From the literature review, we formulated four hypotheses: 1) Parental autonomy support would positively correlate with psychological well-being; 2) Parental autonomy support would positively correlate- with autonomy satisfaction; 3) Autonomy satisfaction would positively correlate with psychological well-being; 4) Autonomy satisfaction would mediate the relationship between the parental autonomy support and psychological well-being.

## 2. MATERIALS AND METHODS

This study employed a cross-sectional quantitative approach to examine parental autonomy support's effect on university students' psychological well-being with the mediation effect of autonomy satisfaction. The sample criteria of this study include 1) university students in Indonesia aged 18-25 years old, and; 2) university students that had lived apart from their parents (in a dormitory or rented house) before the COVID-19 pandemic to pursue college, then returned to live

with their parents again during the pandemic. Using convenience sampling, 275 participants from different universities in Indonesia were recruited for this study. Convenience sampling was used because it is less costly and less time-consuming [44], as it was also commonly used in various studies exploring well-being in COVID-19 situations [45 - 47]. After conducting data screening, 48 responses were excluded because they did not meet the sample criteria ( $n = 38$ ) and did not pass the manipulation check ( $n = 10$ ). Therefore, the final data included in the analysis were 227.

The survey consists of informed consent and three scales. It was administered using Google Form and distributed through various online platforms (*i.e.*, Instagram, LINE, WhatsApp, Telegram, Facebook) from August 23 until September 15, 2021. Prospective participants could only access the scales after giving their consent on the first page of the survey.

### 2.1. Instruments

#### 2.1.1. Parental Autonomy Support

We used five parental PVF items [28] to measure parental autonomy support in this study. The scale comprises five items (*e.g.* "My parents let me make my own plans for the things I want to do."). These items were translated into Indonesian using the translation process of Beaton *et al.* (2000), which included forward translation, synthesis, back translation, expert committee review, and pretesting [48]. Each item is rated on a Likert scale of 1 (totally disagree) to 5 (totally agree). A higher score on this scale indicated higher levels of perception of autonomy support from parents. The Indonesian version of this scale obtained the reliability of  $\alpha = 0.90$ , which is considered excellent [49].

### 2.1.2. Autonomy Satisfaction

Autonomy satisfaction was measured using the Autonomy Satisfaction subscale of the Basic Psychological Needs Satisfaction and Frustration Scale (Chen *et al.*, 2015 scale consists of four items (e.g., “I feel a sense of choice and freedom in the things I undertake.”). We used the Abidin *et al.* (2019) Indonesian version of the scale in this study [50]. Respondents respond on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher score on this scale indicated higher levels of perceived satisfaction with autonomy. The Autonomy Satisfaction subscale yielded a reliability of  $\alpha = 0.78$ , which is considered acceptable [49].

### 2.1.3. Psychological Well-being

The Indonesian version of the Psychological Well-Being Scale – Short Version (Ryff & Keyes, 1995) was used to measure psychological well-being in this study [51]. The scale is composed of eighteen items that consist of six dimensions with three items each. We conducted a similar translation process as the parental PVF scale to translate this scale to Indonesian. Ratings were made on a Likert scale of 1 (strongly disagree) to 6 (strongly agree). Items with negative content ( $n = 8$ ) were coded reversely. The higher score on this scale indicated higher levels of psychological well-being. The reliability of the Indonesian version of this scale was  $\alpha = 0.77$ , which is considered as acceptable [49].

To anticipate negligence in online data collection, we put one manipulation check item into the survey. The item statement is: “For this number, choose option 5.” Participants who did not choose option 5 on this item can be assumed to have not filled out the survey carefully. Consequently, the data given by those participants are excluded and cannot be processed further.

## 2.2. Data Analysis

We used SPSS version 28.0 to analyze the data by calculating the study variables' mean standard deviation. Saphiro-Wilk's normality test showed a result of  $p > 0.05$ , indicating the data fulfilled the normality assumption. We also calculated the correlation between variables using Pearson correlation. We then interpreted the coefficient using the categorization from Guilford (1956), which ranges from 0–0.19 (very weak), 0.20–0.39 (weak), 0.40–0.69 (medium), 0.70–0.89 (strong), 0.90 and above (very strong) [52]. The t-test was also used to test gender differences for every variable. Between-group effect sizes were then computed using the Cohen (1992)  $d$  value, with the ranges of 0–0.20 (small), 0.21–0.50 (medium), 0.80 and greater (large) [53]. To finalize the data analysis, we tested the mediation effect using HAYES Process model 4.

## 3. RESULTS

Participants of this study were comprised of 227 university students; 49 males (21.6%) and 178 females (78.4%), with the age range of 18–24 years old ( $M = 20.73$ ;  $SD = 0.93$ ). The sample belonged to 54 local educational institutes and originated from 21 provinces in Indonesia. Further demographic characteristics of these participants are shown in Table 1.

**Table 1. Demographic characteristics of participants.**

Variable	n	%
Gender	-	-
Male	49	21.6
Female	178	78.4
Age	-	-
18	2	0.8
19	14	5.9
20	68	28.7
21	111	46.8
22	25	10.5
23	4	1.7
24	3	1.3
Province	-	-
West Java	128	54
Jakarta	27	11.4
Banten	13	5.5
Others	64	29.1

Table 2 presents the participants' scores of perceived parental autonomy, support, autonomy, satisfaction, and psychological well-being along with its dimensions; presented in gender ratio. Results showed that male students were having higher psychological well-being than female students ( $p = 0.01$ ,  $d = 0.58$ ). As for the other variables, there are no significant differences between male students and their counterparts.

Descriptive statistics, internal consistency, and Pearson correlation coefficients among variables are summarized in Table 3. There was found to be an excellent internal consistency in parental autonomy support ( $\alpha = 0.90$ ), while autonomy satisfaction ( $\alpha = 0.78$ ) and psychological well-being ( $\alpha = 0.77$ ) are within the acceptable [49]. Results also showed that all variables were positively correlated with each other. According to the Guilford (1956) categorization, the correlation level between parental autonomy support and autonomy satisfaction is considered as a medium ( $r = 0.54$ )—also applies to the correlation between autonomy satisfaction and psychological well-being ( $r = 0.51$ ) [52]. Meanwhile, the correlation between parental autonomy support and psychological well-being is considered weak ( $r = 0.32$ ).

**Table 2. Descriptive statistics analysis.**

Variable	All $M (SD)$	Gender $M (SD)$		$t$	$p$ -value	Cohen's $d$
		Male	Female			
Parental Autonomy Support	4.14 (0.77)	4.19 (0.74)	4.12 (0.78)	0.53	0.60	-
Autonomy Satisfaction	3.91 (0.72)	4.14 (0.64)	3.85 (0.73)	2.72	0.01*	0.42
Psychological Well-Being	4.24 (0.59)	4.44 (0.60)	4.18 (0.58)	2.75	0.01*	0.44

\* $p < 0.05$

**Table 3. Internal consistency and correlation analysis.**

S.No	Variable	M	SD	$\alpha$	1	2	3
1	Parental Autonomy Support	4.14	0.77	0.90	-		
2	Autonomy Satisfaction	3.91	0.72	0.78	0.54*	-	
3	Psychological Well-Being	4.24	0.59	0.77	0.32*	0.51*	-

\* $p < 0.001$ 

The mediation test result is presented in Table 4. The effect of parental PVF on PWB was found positive and insignificant ( $B = 0.05$ ,  $SE = 0.05$ ,  $p > 0.05$ ). We further analyzed the mediation model hypothesis with autonomy satisfaction included in the relationship between parental PVF and psychological well-being. The result shows that parental PVF positively affects psychological well-being ( $B = 0.20$ ) as confidence intervals did not contain zero (0.12 to 0.28). Therefore, it can be concluded that the relationship between parental PVF and psychological well-being is fully mediated by autonomy satisfaction.

**Table 4. Mediation analysis.**

Variable	B	SE	t	p
PAS → PWB	0.05	0.05	1.00	0.32
PAS → AS	0.51	0.05	9.54	0.00
AS → PWB	0.39	0.06	7.03	0.00
-	Bootstrap result for the indirect effect			
-	M	SE	LL 95% CI	UL 95% CI
Effect	0.20	0.04	0.12	0.28

Note. PAS: Parental Autonomy Support; AS: Autonomy Satisfaction; PWB: Psychological Well-Being

#### 4. DISCUSSION

The purpose of this study is to investigate the mediating effect of autonomy satisfaction on the relationship between parental autonomy support and psychological well-being in university students that had lived apart from their parents before the COVID-19 pandemic, then returned to live with their parents again during the pandemic. In accordance with our hypothesis, autonomy satisfaction mediated the relationship between parental autonomy support and psychological well-being. This finding suggests that the autonomy support perceived by the participants from their parents could satisfy their need for autonomy, and this satisfaction leads to their psychological well-being. This result complements previous studies that highlighted the role of autonomy satisfaction as a mediator in the relationship between autonomy support and psychological well-being in various settings. One study with medical student participants in Canada found that autonomy satisfaction fully mediated the relationship between perceived instructor autonomy support and psychological well-being [38]. It was also investigated in Japan that autonomy satisfaction mediates the relation between autonomy support provided by teaching assistants as academic support staff with students' psychological well-being [39]. The role of autonomy satisfaction between coach autonomy support and athletes' psychological well-being was also explored in Mexico [40] and the United Kingdom [41, 42], finding that autonomy satisfaction mediates the relationship. Another study in work settings found that autonomy satisfaction plays a role in

mediating the relationship between supervisor autonomy support and Quebec workers' psychological well-being [43].

The present study also highlights the importance of parents' role in providing a supportive environment for university students by promoting volitional functioning to satisfy their autonomy needs. They need autonomy and support from their parents as this developmental period is characterized by instability and multiple transitions [54] regarding residential, intimate relationships, career, and education changes [55]. Despite having significant autonomy needs that need to be fulfilled, university students also still tend to be financially dependent on their parents [56 - 58].

This study broadly supports the self-determination theory (SDT) framework, which posits that individuals have basic psychological needs to be satisfied to experience an ongoing sense of well-being, one of which is autonomy [22]. Our finding shows that the framework applies not only in the Western culture known for its strong sense of autonomy [59] but also in the Eastern countries (e.g., Indonesia), where the self is not construed as an independent entity. Self is considered an interdependent entity that does not have a firm boundary with others.

A previous study found that university students tend to experience low autonomy during the pandemic due to parental hovering and not enough privacy from living together with their parents in lockdown situations [60]. It was also found that even though students get to have more communication with their parents as they return home, their privacy and autonomy tend to be diminished [61]. This situation could thwart autonomy satisfaction, which eventually leads to ill-being conditions [62, 63]. Considering the restriction policy hindered the direct autonomy support from outside-home parties, the parents' role became more significant. Therefore, to fulfill the university students' autonomy needs, parents should provide opportunities for children to voice their thoughts and feelings about planning and problem-solving. Parents also must take their offspring's views into account, give options to their children whenever possible, and support their offspring to explore and act based on what values they hold and what things pique their interest [64].

The current study shows gender differences concerning psychological well-being, in which male students experienced higher psychological well-being levels than females. This finding is consistent with various studies that found females as more likely to have lower psychological well-being than males [65 - 67]. Several studies also show that during the COVID-19 pandemic, females are more likely to experience depressed mood, anxiety, stress, nervousness, and hopelessness than males [68, 69]. A possible explanation for these results may be the different styles of expressing frustration or negative states of mind, where males usually externalize anger or become aggressive, while females tend to internalize negative feelings, which leads them to be more vulnerable to depression [70, 71].

Male students were also found to have higher autonomy levels than females, either in the satisfaction of autonomy needs or as one of the psychological well-being dimensions. It should be noted that SDT doesn't have the same concept of

autonomy as psychological well-being [72]. SDT's view of autonomy is more focused on the sense of volition [22], while the psychological well-being approach is raised from independence and individualism [73]. However, both of them hold the same concept of self-determination and locus of control in autonomy [72]. Therefore, it can be concluded that male students have a higher sense of volition, control, and independence during the Covid-19 pandemic compared to female students. This is an interesting finding because although there is no difference in the perceived parental autonomy support of both genders, the level of autonomy results shows significant differences between the two. These differences may be explained by considering the tendency of females to have social connectedness or close relationships with other people in comparison to males [74,75]. The implementation of physical distancing regulations in Indonesia during the pandemic has restricted in-person interactions, which led to a decrease in social connectedness [76]. Therefore, even though female students have received autonomy support from their parents, they still feel unable to act autonomously such as having a friend gathering due to the Covid-19 restrictions.

There are some limitations to this study. First, a cross-sectional dataset to document a mediation model is not ideal because the exposure and outcome are simultaneously assessed. In addition, the sample size is small and is recruited by a convenience sampling method, which also results in gender imbalance of the participants involved and a lack of generalizability of the study results. Next, the study relied on the use of an online questionnaire platform, hence narrowing down the demographics to only those who possess a mobile phone and internet connection. Future research may consider stratified sampling and other feasible instruments to reach more diverse and equally distributed participant characteristics.

## CONCLUSION

The present study identified the role of autonomy satisfaction as a mediator between the relation of parental autonomy support and psychological well-being in Indonesian university students. The result shows that autonomy satisfaction could fully mediate the relationship between parental autonomy support and psychological well-being. This finding supported the self-determination theory framework and indicated the importance of parental autonomy support in enhancing university students' psychological well-being, especially in pandemic situations.

## LIST OF ABBREVIATIONS

**PVF** = Promotion of Volitional Functioning  
**SDT** = Self-determination Theory

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the Research Ethics Committee of Universitas Padjadjaran, Bandung, Indonesia (638/UN6.KEP/EC/2021).

## HUMAN AND ANIMAL RIGHTS

No animals were used for studies that are the basis of this

research. All human procedures followed were in accordance with the guidelines of Helsinki Declaration of 1975.

## CONSENT FOR PUBLICATION

Informed consent was obtained from all participants of this study.

## STANDARDS OF REPORTING

STROBE guidelines were followed.

## AVAILABILITY OF DATA AND MATERIALS

The data of this research will be available from the corresponding author [F.A.B] upon request.

## FUNDING

None.

## CONFLICT OF INTEREST

The authors declare that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

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