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Parental influences on medical students' self-efficacy and career exploration in collectivist culture

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Abstract:

INTRODUCTION: Families, especially parents, play an important role in identifying their children's talents and directing their educational journey. The role of parents in their children career applies both to collectivist and to noncollectivist culture.

AIM: To examine the correlation between parental influences on medical students' self-efficacy and career exploration in collectivist culture.

METHODS: This research was a quantitative study. The study involved 1017 medical students of medical faculties in four faculties of medicine in Indonesia. All data were collected online in August 2018. The study was conducted using an online survey questionnaire and analyzed to finally form a model that displays the determinants of career exploration behavior. The data were analyzed using the maximum likelihood estimation in IBM AMOS 24.

RESULTS: The results found a model that has various routes toward career exploration in collectivist culture. Path analysis revealed both direct and indirect effect toward the variable studied. Parents' expectations had influence on self-efficacy.

CONCLUSION: The findings show the important role between the influence of parents expectations for self-efficacy and career exploration in children.

Keywords:

Collectivist cultures, medical career, parental influences, self-efficacy

Introduction

Careers in medicine can be divided into two groups: clinical fields and nonclinical fields. Although there are many educational path that can be chose from for medical students, most would choose specialty as their career choice. This phenomenon would cause profession distribution tipping toward clinical field sides. To get a balanced distribution, medical students needs to be exposed to many career choices and exploring their educational journey early.^[1]

Research have shown that families, especially parents, play an important role

in identifying their children's talents and directing their educational journey.^[1,2] Family factor is the first environment for an individual to grow and develop in a personal way. Most medical students believe parents have a heavy impact on career choices, while others make career choices with their parents.^[3] The role of parents in their children career applies both to collectivist and to noncollectivist culture.^[4] However, there is still small research conducted in the collectivist countries where interdependency and in-group reliance are regarded as norms.^[5] Indonesia was placed as a nation with a high value of collectivism culture compared to other countries such as India, Japan,

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Malaysia, Philippines, and Arab countries.^[6] Although researchers have begun to look for parental expectations and congruence on adolescence career choice and exploration in collectivist environment, no studies have examined self-efficacy and career exploration.^[7,8]

Self-efficacy was postulated by Bandura as a belief that individuals have the ability to complete tasks and achieve goals. Outcome of self-efficacy is that individuals can make their career decision-making confidently.^[8,9] Career exploration can be defined as all of behaviors intended to find information relevant to the career progress.^[10] The consequence is that, individuals who is finding, analyzing, and investigating their career information is much better adapted.^[11,12] The conclusion is self-efficacy and career exploration as an outcome variable in this study.

The aim of this study is to examine the correlation between parental influences on medical students self-efficacy and career exploration in collectivist culture using social cognitive theory as a framework, as it can explain the dynamic process of individual and context-specific influences.^[12-14]

Methods

Participants

This research was a quantitative study. The participants were 1017 medical students in three provinces, the Medical Faculty of Sriwijaya University (Unsri) and Muhammadiyah University of Palembang in South Sumatra, The Medical Faculty of Jambi University (Unja) in Jambi, and the Medical Faculty of the University of Bengkulu (Unib) in Bengkulu with inclusion criteria including medical students who were actively studying, both in preclinical and professional education, and willing to take part in this study by fill out a questionnaire. Exclusion criteria were participants who were not willing to take part in the study. We decided to choose the medical students in those provinces because of the same cultural norms. The data were collected from the online questionnaire in August 2018.

Materials

Parental career expectations

The parental expectations for a career using nine items of perceived parental expectation subscale (academic achievement domain) that have been translated into Indonesian.^[7,8] This items picked up students' perceptions of their parents' expectations about their career choices and academic performance. The answers were transformed into scale from 1 to 6 (1 = not expecting at all and 6 = very hopeful) on questions such as "Parents expect you to get a high-paying job in the future, how strong do you feel this?" Higher

scores indicate higher parental expectations for their children's careers.

Adolescent-parent career congruence

The adolescent-parent career congruence was assessed using 12 items of adolescent-parent career congruence scale that had been translated into Indonesian.^[8] Students would respond to questions such as "My parents want the same career as what I want" on a scale of 1-6 (1 = strongly disagree and 6 = strongly agree). Higher scores show a greater congruency of adolescent-parent career expectations.

Self-efficacy

Self-efficacy using 12 career decision-making self-efficacy subscale items from middle school self-efficacy that have been translated into Indonesian is used to assess the students' self-efficacy in determining their career. Students will respond to questions such as "How confident are you that can find information in the library about work that interest you?" on a scale of 1-6 (1 = not confident at all and 6 = very confident).^[12,13]

Career exploration

Career exploration is the involvement of students in career exploration activities in the last 3 months assessed using the career exploration survey that has been translated into Indonesian.^[12,13] Students will respond in the form of 1 to 6 scales (1 = almost never and 6 = very often) from statements such as "In the past three months, I have focused my mind on myself as someone in relation to my career."

Statistical analysis

All models were analyzed using the maximum likelihood estimation in IBM AMOS 24[®] Copyright 2016 (Amos Development Corporation, Chicago, US: IBM SPSS). The parameters are χ^2 , goodness of fit (GFI), the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA). With 1017 participants observed, a significant or a nonsignificant χ^2 significant, χ^2/df values <3 GFI values >0.90, CFI and TLI values >0.92, and RMSEA <0.07 showed acceptable fit.^[14]

The mediation pathways tested by two models. We tested direct effects only and tested both direct and indirect effects are also examined. Standard errors and 95% confidence intervals (CIs) using AMOS bootstrapping. Mediation happens when the mediator is correlated with the predictor and outcome, and the 95% CIs from the indirect effects via the mediator do not contain zero. This analysis highlights the complexity and importance of parental influences on student aspirations.^[15]

Results

The measurement model were good fit statistics, χ^2 (2, $N = 1017$) = 3.05, $P = 0.22$, $\chi^2/df = 1.53$, CFI = 0.99,

GFI = 0.99, TLI = 0.99, RMSEA = 0.02. Factor loadings ranged from 0.04 to 0.77. Table 1 reports summary data, zero-order correlations, and correlations among variables.

According to Figure 1, a model in which parents' expectations and adolescent-parent career congruence could affect self-efficacy, and self-efficacy itself influences career exploration. This model shows good fit, $\chi^2(2, N = 1017) = 3.05, P = 0.22, \chi^2/df = 1.53, CFI = 0.99, GFI = 0.99, TLI = 0.99, RMSEA = 0.02$. There were several nonsignificant direct pathways in this measurement models, parents' expectations, and adolescent-parent career congruence for career exploration. The model accounted for 11.7% of the variance in parental expectations and adolescent-parent career suitability and 36.5% in self-efficacy. The standard total effect for parents' career expectations is 0.09 (on self-efficacy), career congruence 0.31 (on self-efficacy), and self-efficacy on career exploration 0.60. The total standard effect for parents' expectations of adolescent-parent career suitability and vice versa is 0.139.

Direct effects were test by using 1.000 bootstrap samples. Parents' expectations predict self-efficacy ($\beta = 0.89, P = 0.01$) and self-efficacy for career exploration ($\beta = 0.60, P = 0.01$). We found the mediating effect of parents' expectations and career suitability on career exploration (through self-efficacy; CIs = 0.54–0.64). Using the same procedure, we tested the indirect effects for (a) suitability for exploration (through self-efficacy, CIs = 0.14–0.21) and (b) parents' expectations of exploration (through self-efficacy CIs = 0.006–0.087). All indirect effects were significant.

The final model with standardized regression weights

Table 1: Correlations, means, and standard deviations

Variables	1	2	3	4	Mean	SD
1. Parental expectation	-	0.277***	0.74***	0.146***	4.97	0.69
2. Career congruence	0.27***	-	0.33***	0.22***	4.85	0.72
3. Self-efficacy	0.17***	0.33***	-	0.60***	4.70	0.32
4. Career exploration	0.14***	0.22***	0.60***	-	3.97	0.41

*** $P < 0.001$. SD=Standard deviation

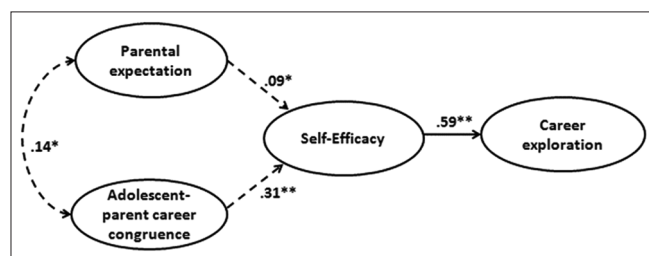


Figure 1: The correlation between parental influences and career exploration model

included. Only significant paths were included to avoid visual clutter. Full lines reflect basic society of cardiovascular computed tomography (SCCT) model; dashed lines reflect as the predictor variables * $P = 0.05$, ** $P = 0.01$.

Discussion

This study examined the relationship between the influence of parents' expectations (parents' career expectations and adolescent-parent career congruence), self-efficacy, and career exploration. The SCCT framework was used for collectivist culture sampling. This theory has been widely used to explain career activities and the selection of subjects, such as mathematics, science, and engineering.^[16-18] This study shows that parental variables are related to career exploration. Parents' expectations influence adolescent self-efficacy. Parents' expectations and the career congruence of adolescent-parents serve as a proximal source of adolescent self-efficacy information, which then influences their child's career exploration.^[4,18] This shows that parents are very influential on collectivist culture toward their child's exploration and career choice. Parents play an important role in shaping effective collectivist adolescent beliefs.^[18,19]

The results of this study are supported by Syakurah *et al.* that family influences in medical student's career as their decision. Parents' and elderly's opinions heavily regarded in the collectivist environment. Many students felt like their career choice was not their own, and they need family and partners to negotiate their career choices. Parents' perception will affect their opinion and suggestions because their perception of specific careers becoming more critical.^[20] Maulidira *et al.* further reinforced the findings where parents who work as doctors become an influential role model figures and in turn has big influence for their children in choosing a medical career.^[21] This is related to Beladina that there is significant relation between parent work and support for their children in choosing a carter ($P = 0.000$).^[3] Their children are interested in following a career that is exactly the same as their parents or family.^[21]

In this study, adolescent-parent career congruent related to self-efficacy and also indirectly related to career exploration in children; this is relevant to the previous study of Sawitri *et al.*^[22] Career congruency means that the similarity between adolescent and their parents about career goals in the future.^[23] It also supported by other theories that adolescents with collectivist cultures maintain reciprocal relationships with the parents to become agree with their career progress, and it affects both career development and well-being.^[7]

Self-efficacy is stronger when it comes to career congruence between adolescent and parents compared to the career expectations of parents.^[11] This shows that although consideration of parents' career expectations is important, compatibility with parents regarding career problems has more influence on self-efficacy in children and tends to be a major encouragement of increasing adolescents' confidence in handling career tasks.^[24,25] This supports previous research involving adolescents from a collectivist background, where high student ratings of parental actions are shown to be positively related to self-efficacy. Adolescents from collectivist societies tend to consider the parental expectation when taking action related to careers.^[11,24,25]

In career exploration in the context of collectivist culture, this study highlights the role of parents' career expectations and the career congruence of adolescent-parents in career exploration through self-efficacy. This study shows that parental involvement has a strong effect on an individual's career choice, which is relevant to Lent *et al.* that individual career choices in collectivist culture are influenced by others who are significant for the individual.^[11,23]

Quantitative research method leads to limited outcomes about parent influences on career decisions. The result cannot always represent the actual occurring data, in a generalized form. The participants also have limited options of responses, based on the selection made by researcher.

Conclusion

The current study indicated that parents play an important role in children's career development especially in Indonesia as collectivist country. They depend heavily on their parents' perception and decision. In a collectivist culture, parents are seen to be role models who prefer the greater expectations given to youth decisions. These finding suggests that parental expectation and adolescent-parent career congruence are related, and also influence on children's self-efficacy and career exploration.

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Conflicts of interest

There are no conflicts of interest.

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Jasmon, *et al.*: Parental influences on self-efficacy and career exploration

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