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Career Decision-Making Self-Efficacy and Its Implications in High School Students during the Covid-19 Pandemic

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ABSTRACT

Aims Self-efficacy in making professional decisions refers to people's confidence in their abilities to complete tasks and display particular behaviors, which enables them to successfully connect these activities to their career goals. This study aimed to examine and determine the level of self-efficacy of high school students in choosing a career during the Covid-19 pandemic.

Instruments & Methods This cross-sectional pilot study survey was conducted on 469 high school students in Boyolali Regency and Surakarta City, Indonesia, who were selected using the cluster proportionate stratified random sampling technique. The Career Decision Making Self-Efficacy Scale-short Form was used to gather the data. Data were analyzed using SPSS 23 software.

Findings The self-efficacy of high school students in making career decisions during the Covid-19 pandemic was rated as moderate. There was no significant difference in the level of self-efficacy in career decision-making between the male and female students ($p>0.05$). However, there was a significant difference between junior and senior high school students in Career Decision-Making Self-Efficacy ($p<0.05$) and problem-solving ($p<0.01$).

Conclusion Problem-solving indicators can be used to create guidance and counseling programs in schools and have implications for future career planning.

Keywords Career Choice; Decision-Making; Self-Efficacy; Students; Covid-19

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Introduction

The Covid-19 pandemic has had a particularly negative impact on the sphere of education. The Covid-19 pandemic caused several educational issues, including the students' mental health and the need for a curriculum that suits the pandemic condition [1, 2], the students' physical health and moral development [3-5], and the lack of supportive technological facilities. Given that one of the goals of students is to plan and choose a career when they graduate, among the many issues previously discussed, students' career decision-making self-efficacy during the pandemic seems to require additional attention [6].

Self-efficacy in making professional decisions refers to people's confidence in their abilities to complete tasks and display particular behaviors, which enables them to successfully connect these activities to their career goals [7]. According to Flores *et al*. [8], self-efficacy in career decision-making refers to a person's confidence in their ability to carry out activities associated with the process. In a similar line, Crisan and Turda [9] define it as an individual's conviction that they are engaged in activities connected to the best career path. In other words, the ability to manage and carry out career tasks by engaging in the appropriate behaviors to attain one's career goals is known as career decision-making self-efficacy.

Students should be confident in their ability to make career decisions, especially in light of the Covid-19 pandemic. According to Germeijs and Verschuere [10], students who have strong career decision-making self-efficacy tend to make the right job choices and decide their future success. Those who choose the wrong career are more likely to experience psychological, academic, and interpersonal issues. In this sense, self-efficacy may have a big impact on people's professional decisions [11]. Those with high career decision-making self-efficacy often view challenges as opportunities to grow rather than dangers to be avoided [12]. Students with low career decision-making self-efficacy are frequently unprepared to choose a career. When they encounter various challenges, they also frequently modify their job aspirations [13]. Such kids could struggle to exhibit proper behaviors in their daily lives and be uncertain about their career choices [14]. Also, students with low self-efficacy in making professional decisions prefer to avoid responsibilities like choosing a major, developing new skills, identifying their interests, and researching career-related information [15].

The school counselor is one of the components of education whose function is essential in fostering students' career development. Among other markers, students' professional progress can be demonstrated by how effective they are at making career decisions. School counselors must be aware of the students' situation in this regard, especially as it relates to their professional growth, which may be seen from their self-efficacy in making career decisions. A basis for creating guidance and counseling programs at school depends on school counselors' expertise and comprehension of students' self-efficacy in making career decisions during the epidemic [16].

Additionally, since the Covid-19 pandemic requires all educational levels to deliver distance learning, students run the risk of having less developed self-efficacy for making career decisions due to stress and boredom during the online learning process, which lowers their engagement in the classroom. Because of this problem, pupils struggle to decide on their future careers. According to research, students' involvement in the learning process is mediated by the learning activities and materials [17]. Teachers' direct participation in the learning process, the learning materials, and the learning system implemented by the school all have an impact on the students' involvement in the learning process [18]. It is crucial to monitor students' self-efficacy in making career decisions during the Covid-19 epidemic since it might be a key sign of how they are developing professionally.

According to a prior study by Yadav [5], the Covid-19 epidemic has an impact on students' psychological health and raises their anxiety while making professional decisions. To determine how their worry during the pandemic would affect their choice of career, 66 senior high school students were involved in his study. They were asked to respond to 60 questions covering 10 different areas. The study found that students did not display worry about making a career choice during the Covid-19 epidemic, and the social service sector was the one that was most frequently chosen.

Zhou *et al*. [12] also conducted a study on Career Decision-Making Self-Efficacy (CDMSE), demonstrating that it not only adds to the body of knowledge about career development but also offers a suitable career intervention. Self-evaluation, occupational knowledge, career planning, and issue resolution are the components that makeup career decision-making self-efficacy. One's career development is thought to be significantly influenced by these qualities as a cognitive variable. Students must possess CDMSE, according to Zhang *et al*. [19], to handle the challenges of the age and its rapid changes in the labor market. It is important to have a guidance and counseling service to enhance students' CDMSE. They can develop their ability to think strategically, have a successful role model, and encourage family involvement through the use of suitable guidance and counseling services. This will help them to have more resources available to them.

Students' self-appraisal in the professional decision-making process is one of the markers of CDMSE [20]. The study found that anxiety and depressive symptoms are caused by negative thoughts associated with maladaptive perfectionism, which affect one's self-perception. It has been proven that many cognitive factors and perfectionism related to socio-economic status affect how a person perceives himself. Thus, a training intervention is required to develop kids' healthy cognitive abilities. Making a correct self-evaluation, acting in ways that are compatible with one's abilities, and maintaining consistency between performance and expectation are all ways to develop healthy perfectionism.

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A study was carried out by Kidd and Murray [21] between 2019 and 2021 with 24,273 students from 13 urban and rural senior high schools. Several results were revealed: Male students had higher CDMSE scores than female students, while students in urban areas had higher CDMSE scores than those in rural areas. By participating in career-related activities, such as setting professional goals and exploring job options, one's self-efficacy in making career decisions is known to predict how their career interest will evolve.

According to the study of Stachteas and Stachteas [22] on CDMSE among students in low-income rural parts of China, female students are more neurotic than male students, while senior students are better at controlling their emotions than junior students. Regarding the overall CDMSE score, no discernible change was seen. In terms of self-appraisal, there was a significant difference based on gender and educational background.

This study, which is based on the earlier studies mentioned above, is concerned with studying the impact of gender and educational attainment on students' self-efficacy in making professional decisions during the Covid-19 pandemic. This study can be helpful for school counselors to understand their students' self-efficacy in selecting career decisions during the Covid-19 pandemic, which may serve as the basis for developing guidance and counseling programs during the Covid-19 pandemic. The current study also serves as the foundation for additional research aimed at enhancing students' self-efficacy in vocational decision-making during the Covid-19 epidemic. This study aimed to determine the students' need for advice and counseling services to enhance their CDMSE during the Covid-19 epidemic.

Instruments and Methods

The current study was done as a cross-sectional pilot study survey and a quantitative research project to gather the information that might be used to describe the attitudes, habits, and features of a population based on the chosen samples. The recruited respondents were 469 high school students in Boyolali Regency and Surakarta City, Indonesia, who provided the data at a time point from March 30, 2022 to April 30, 2022.

With equal possibilities for all population members to engage in the study, the respondents were chosen using a two-stage random sample technique that included cluster and individual random sampling procedures.

The Career Decision Making Self-Efficacy Scale-short Form [15], which has 25 items and 5 indicators, was used to gather the data. The indicators include Goal selection (e.g., I will choose a profession that suits my interest), Career planning (e.g., I have a plan after graduating), Self-assessment (e.g., I will keep trying despite failure), Occupational information (e.g., I will join additional courses to improve my competence), Problem-solving (e.g., When facing difficulties, I ask for helps to my friends). The scale is a five-point Likert scale, with a range of 1 (completely unsure) to 5 (very sure). This scale showed a coefficient alpha of 0.908 and a product moment value ranging from 0.441 to 0.737 in terms of validity and reliability.

The questionnaire was made available online using a Google form, and participants were requested to answer each item directly. Bivariate correlation and univariate data analysis were also used. Five interval criteria (Very Low, Low, Fair, High, and Very High) were used to interpret the percentage. If the result's percentage is between 84% and 100%, the result is classified as “Very High”. In the case where the proportion falls between 68% and 83%, it is classified as “High”. If the proportion falls between 52% and 67%, it is rated as “Fair”. In the case where the proportion falls between 36% and 51%, it is classified as “Low”, and if the percentage is between 20% and 35%, it is classified as “Very Low”.

To determine the students' CDMSE levels and differences in CDMSE according to gender and educational attainment, the obtained data were analyzed using a Paired t-test by SPSS 23 software.

Findings

Out of 469 students, 331 were male, and 138 were female. Also, 245 were junior high school students, and 224 were seniors in high school.

The majority of respondents (81%) had moderate CDMSEs, whereas just 19% of respondents had low CDMSEs. The majority of junior high school pupils (80%) had moderate levels of CDMSE, while just 20% had low levels. While 17.9% of the senior high school participants in the study had low CDMSE, 82.1% also showed signs of moderate CDMSE.

In terms of gender, female respondents reported low and moderate levels of CDMSE at 15.2% and 84.8%, respectively, whereas male respondents showed low and moderate levels of CDMSE at 20.5% and 79.5%. Overall, no respondents showed signs of high CDMSE.

From a total of 469 students, it can be noted that 380 male students and 89 female students fell into the moderate and low categories. Looking at the CDMSE levels of students by gender, there were 263 female students in the moderate category at the junior high school and 68 at the senior high school. There were 117 male junior high school pupils and 21 male senior high school students in the moderate and low categories.

According to the educational level, at the junior high school level, 196 male students and 49 female students were in the moderate and low categories. At the senior high school level, there were 184 female students and 40 male students in the moderate category. So, based on gender and educational level, there were a significant number of students in the moderate and low categories of the CDMSE.

In terms of gender, no significant difference was observed in the mean scores of CDMSE and its indicators between male students and female students ($p>0.05$).

In terms of education level, there was a significant difference between junior and senior high school students in CDMSE ($p<0.05$) and problem-solving ($p<0.01$), but no significant difference was found

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between junior and senior high school students' self-appraisal, occupational information, goal selection, and career planning (Table 1).

Table 1) Comparing the mean scores of CDMSE and its indicators based on gender and education level

Variables	Group	Mean±SD	t_{467}
Gender			
CDMSE	Male	63.77±7.58	-0.01
	Female	63.77±6.45	
Self-appraisal	Male	12.67±2.07	0.24
	Female	12.72±2.06	
Occupational information	Male	12.47±2.29	-0.26
	Female	12.41±2.11	
Goal selection	Male	13.72±2.15	0.89
	Female	13.91±1.77	
Career planning	Male	12.53±2.39	0.22
	Female	12.58±2.07	
Problem-solving	Male	12.38±1.99	-1.15
	Female	12.14±2.02	
Education level			
CDMSE	Junior	63.06±6.75	-2.29*
	Senior	54.55±7.71	
Self-appraisal	Junior	12.53±1.19	-1.73
	Senior	12.86±1.90	
Occupational information	Junior	12.34±2.15	-1.19
	Senior	12.58±2.33	
Goal selection	Junior	13.79±2.03	0.7
	Senior	13.76±2.07	
Career planning	Junior	12.39±2.13	-1.52
	Senior	12.71±2.38	
Problem-solving	Junior	12.01±1.84	-3.45**
	Senior	12.64±2.01	

*p<0.05, **p<0.01

Discussion

The study's findings revealed that during the Covid-19 pandemic, the majority of pupils displayed a moderate level of CDMSE. In other words, during the Covid-19 pandemic, the majority of students find it challenging to decide on a job. According to the study of Stachteas and Stachteas [22], students have a low level of self-efficacy when choosing a vocation, as is evidenced by their confusion. Similar findings have been reported by other studies, namely that students find it challenging to choose careers during the Covid-19 pandemic [23]. The Covid-19 pandemic has contributed to students' difficulty in making vocational decisions, according to the current study.

Social and activity limitations during the virus outbreak, which also affect students' psychological conditions and future career choices, probably are the cause of students' poor CDMSE scores. Many high school students experience depression, anxiety, and stress that interfere with their career planning [22]. This condition is also mentioned in earlier studies [20, 24].

Overall, this study demonstrated no statistically significant difference based on gender in CDMSE. Also, there was no significant difference between each CDMSE indicator. This result makes sense because students experience social limitations during Covid-19. Further analysis revealed that, although not significantly different, male students had higher CDMSE scores than female students. This result is consistent with van Esch *et al.*'s observation [25] that females frequently have weaker self-efficacy than males. This result contrasts with Jiang's study [26], which discovered that gender does not affect CDMSE level. This distinction further states that there was no discernible gender difference in CDMSE during the Covid-19 epidemic.

The current study discovered a substantial variation in CDMSE between junior and senior high school pupils in terms of education level. Senior high school students had better CDMSE scores than junior high school students, which could be explained by the fact that senior high school students have greater career knowledge and preparedness than junior high school students [10, 27, 28]. In light of developmental phases, senior high school students seem to have greater social, emotional, intellectual, and personal maturity than junior high school students [4, 6]. It means that the current results are consistent with the developmental theory, which states that more maturity is typically associated with older ages, including in the career domains.

Only the indicator of problem-solving showed a significant difference with a closer examination of each index. Senior high school students were more adept at solving problems than junior high school students, were psychologically more developed than junior high school students, and were independent and able to make choices [29-31].

People between the ages of 12 and 21 are categorized into three age groups: early adolescence (12–15 years old), middle adolescence (15–18 years old), and late adolescence (18-21 years old) [32]. Senior high school students are in the late adolescent stage, while junior high school students are in the early and middle stages of adolescence. Senior high school students have superior problem-solving skills and are more psychologically stable than junior high school students, which can be attributed to the stage difference.

The significance of focusing guidance and counseling programs during the Covid-19 epidemic on students' career domains is suggested by this outcome. The CDMSE is one of the markers of the students' professional development. The job of a school counselor is to guide and facilitate students' career development [11, 33, 34]. The development of guidance programs aimed at enhancing students' self-efficacy in choosing career decisions during online learning can be done in response to this conclusion.

Limitations and suggestions

The only variable in this study, which is restricted to two high schools in two separate cities, is the students' junior and senior high school students' self-efficacy in choosing career decisions. It is advised that future research

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broaden its coverage by including people from different ethnicities and educational backgrounds. Further research is advised to look at additional factors influencing high school students' CDMSE and to implement specific interventions to raise students' CDMSE.

Conclusion

The majority of students have a moderate level of CDMSE during Covid-19 pandemic. There is no gender-related difference in CDMSE. However, there is a significant difference in CDMSE between junior and senior high school students. Among CDMSE indicators, only problem-solving shows a significant difference between junior and senior high school students.

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