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RESEARCH ARTICLE

Effects of a Career Development Intervention Module on Gender, Income Level, and Academic Performance in Saudi Arabia

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ABSTRACT

This study investigates the impact of a career development intervention module on career maturity, career indecision, and career decision-making self-efficacy among high school students in Saudi Arabia, with a focus on gender, income level, and academic achievement. Utilizing a quasi-experimental design, the research employed pre- and post-surveys to assess the effectiveness of the intervention. The sample consisted of 40 students (20 males and 20 females) from two public schools in Medina. Results indicated significant improvements in career maturity (pre-survey mean = 31.37, post-survey mean = 40.52; t-value = 10.08, $p < 0.01$), career indecision (pre-survey mean = 70.78, post-survey mean = 80.30; t-value = 3.21, $p < 0.05$), and career decision-making self-efficacy (pre-survey mean = 91.20, post-survey mean = 97.80; t-value = 3.505, $p < 0.05$) following the intervention. However, multivariate analysis of variance (MANOVA) revealed no statistically significant differences in the intervention's effects based on gender or family income ($p > 0.05$). The findings suggest that career development interventions can significantly enhance students' career readiness, irrespective of socioeconomic or gender factors. This study contributes to the growing body of literature on career development in the Middle Eastern context and provides empirical evidence for the implementation of culturally relevant career guidance programs in Saudi Arabia.

Contribution/Originality: This study documents culturally tailored career interventions for Saudi Arabia's socio-educational context, addressing gender, income, and achievement gaps in Middle Eastern high schools. The paper's primary contribution

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is finding that career development interventions significantly improve maturity, reduce indecision, and boost self-efficacy across all demographics.

1. Introduction

Contemporary youth are characterized by high aspirations and expectations for extensive education and professional success. However, research indicates that many lack well-structured strategies to achieve these goals (Alhamoudi & Alnattah, 2018). Adolescents are often confronted with critical decisions that shape their initial career trajectories (Abdulrahman et al., 2012). Career choice is undeniably one of the most challenging decisions individuals face, regardless of their socioeconomic background (Bernard-Phera, 2000). Consequently, there is a pressing need for a clear, coherent, and widely accepted framework to support lifelong occupational development (Walters et al., 2009). Career interventions must be designed with consideration of local contextual factors, as they cannot be developed in isolation (Ali et al., 2012).

Previous studies have shown that students who have declared their majors often exhibit less motivation toward their chosen fields, highlighting the value of career counselling services as a form of intervention (Newman et al., 1990). This study is significant for several reasons. First, it contributes to the body of knowledge on Social Cognitive Career Theory (SCCT) and its application to career development. Second, it provides insights that could inform improvements in Saudi Arabia's educational system. Third, the use of quantitative methods enhances understanding of the subject matter and allows for cross-country comparisons (Almojali et al., 2017). Despite increased access to higher education, students in Saudi Arabia receive limited support in career development, as evidenced by the absence of a national curriculum for career guidance in government-funded schools.

The primary objectives of this study are threefold: (1) to develop a theory-based, culturally relevant career intervention to assist Saudi students in improving their career decision-making; (2) to explore the relationships between educational career interventions and career decision-making self-efficacy, career maturity, and career indecision; and (3) to provide recommendations for career intervention strategies tailored to Saudi high schools. Saudi Arabia, a major economic player in the region, hosts a significant number of expatriates who fill various job vacancies. This underscores the need for research on the effectiveness of theory-based career interventions in the Saudi context, particularly in producing qualified job seekers across diverse fields. The findings of this study will not only contribute to the existing literature on career development but also serve as a catalyst for the creation of comprehensive, culturally relevant career programs for Saudi students. Furthermore, the results may guide policymakers in enhancing the current educational system (Almutairi et al., 2018; Alswat et al., 2017).

In 2015, Saudi Arabia had 1.3 million students enrolled in undergraduate programs, yet the unemployment rate stood at 12.9% in the first quarter of 2018, with many unemployed graduates holding degrees in social sciences, business, and law. Despite easier access to tertiary education, students lack systematic support for career development, as evidenced by the absence of a national agenda for career guidance in government-funded schools. The modern Saudi state was established in 1932 by King Abdulaziz bin Abdulrahman Al Saud (Saeed et al., 2017). The discovery of oil in the 1960s transformed the nation into a leading oil exporter, with annual sales of 260 billion barrels (Altamimi et al., 2017). The government has since invested in various sectors, including

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education, through scholarship programs that have enabled 114,000 students to study abroad in countries such as the United States, the United Kingdom, Canada, and Japan. However, these figures must be contextualized within a population of 31 million, of which 72% are Saudi nationals and the remainder are expatriates (Aljadhey et al., 2017; Zaitoun, 2018). The Saudi education system mirrors that of the United States, with students beginning formal education at age seven and progressing through six years of primary school, three years of intermediate school, and three years of secondary school, graduating at age 18 (Kassimi, 1983; Nader, 1980).

Social Cognitive Career Theory (SCCT), introduced by Bandura (1986) and later expanded by Lent et al. (1994, 1996), emphasizes self-efficacy as a critical factor in career development. SCCT focuses on three key areas: the development of career interests, career choice, and performance in educational and occupational settings (Lent et al., 1994; Nauta, 2004; Gushue et al., 2006; Yusoff et al., 2019). Career self-efficacy (CSE) refers to an individual's confidence in their ability to make career decisions and achieve desired outcomes (Hackett & Betz, 1981). According to Betz and Hackett (1986), CSE is an expectation of self-efficacy related to behaviours necessary for career choice and adjustment (Yusoff et al., 2019). CSE is also defined as an individual's capacity to plan, organize, and execute actions to achieve career goals (Jelas et al., 2013). Research by Mohd Izwan Mahmud et al. (2016) suggests that CSE is a measurable element of career readiness and can be enhanced through systematic interventions.

SCCT is the most suitable framework for explaining career self-efficacy, as it provides a comprehensive understanding of the factors influencing career development (Bandura, 1986; Lent et al., 1996). This study adopts SCCT due to its compatibility with the research objectives and its advantages over other career theories (Zacher et al., 2018; Yusoff et al., 2019).

Previous research has highlighted the importance of career development in achieving both subjective and objective career success, such as personal fulfilment and professional advancement (Ng et al., 2005; Sullivan & Baruch, 2009; Vinkenburg & Weber, 2012; Wang & Wanberg, 2017). Career development interventions extend beyond assessing career decision-making attributes; they aim to support students in navigating their career paths and exploring diverse roles. These interventions include career education, coaching, and counselling, among other strategies. Prior studies have primarily focused on identifying the knowledge and skills necessary for career decision-making, including career awareness, the effectiveness of career development modules, and the relationship between career guidance and career choice (Salim, 1998; Chua, 2002).

Career indecision, defined as a transient state experienced during decision-making, is often rooted in difficulties related to personal and vocational identity (Gati et al., 1996). Research on career decision-making has predominantly examined career indecision, career decision-making self-efficacy (CDSE), and career decision-making difficulties (Osipow, 1999). Talib et al. (2015) found that a career exploration module significantly improved career planning, self-efficacy, and maturity among community college students. Similarly, Park et al. (2018) demonstrated that a future time perspective (FTP)-based career intervention enhanced career decision-making self-efficacy and career search self-efficacy.

Career maturity, a developmental construct, reflects an individual's knowledge of themselves and the occupational world, as well as their decision-making competencies

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and positive attitudes toward the career development process (Talib et al., 2015). Research has consistently shown a negative correlation between career decision-making self-efficacy (CDMSE) and career indecision (Betz & Luzzo, 1996; Lopez & AnniYi, 2006), underscoring the importance of interventions that enhance CDMSE. Choi et al. (2011) suggest that improving CDMSE is an effective strategy for reducing career indecision. Reese and Miller (2006) found that cognitive information processing models can increase CDMSE, making it a valuable construct for empirical research on career decision-making and related behaviours (Xu & Bhang, 2019).

Career decision-making is a critical life event that significantly influences an individual's future, particularly for high school and college students (Omari & Woodcock, 2012). Many students lack the necessary tools to make informed career decisions, which can have long-term consequences. Addressing career indecision is essential for raising awareness of the challenges students' face, as critical career decisions are often made during high school (Halawany et al., 2018). Schools play a vital role in supporting students through career decision-making courses, which can enhance career maturity and decision-making capabilities (Halasz & Kempton, 2000; Reese & Miller, 2006; Şeker, 2020). Adolescents, particularly high school students, are the most vulnerable to career choice difficulties, making this age group a focal point for career interventions (Vignoli, 2015).

Despite the proven effectiveness of career interventions, there is a need for further research on the factors influencing career decisions among high school students (Citarella et al., 2020). Career development modules can increase the number of students pursuing higher education, but these modules must be responsive to students' dynamic career needs and adaptable to changing circumstances (Reese & Miller, 2006). This study aims to evaluate the impact of a career development intervention on career maturity, career indecision, and career decision-making self-efficacy among Saudi high school students, with a focus on gender, income level, and academic achievement.

Saudi Arabia's conservative social and cultural norms, including the influence of family on career decisions and the low employment rate among women, present unique challenges for career development. However, recent societal shifts toward greater openness highlight the need for career interventions that challenge stereotypes and encourage students to make informed career choices based on their interests and values (Bahkali et al., 2014). In an era of rapid globalization and technological advancement, guiding students through career decision-making is essential for navigating increasingly complex educational and employment landscapes (Ahmad, 2015).

In conclusion, adolescents are particularly vulnerable to career choice difficulties, and there is a lack of research on the impact of career development interventions on high school students in Saudi Arabia. This study aims to fill this gap by examining the effects of a career development intervention module on career maturity, career indecision, and career decision-making self-efficacy among Saudi high school students. The findings will provide empirical evidence on career maturity in the Saudi context, considering the country's unique cultural, social, and educational characteristics. The study addresses the following research questions:

i. What is the effect of the career development intervention module on the career maturity of Saudi high school students?
ii. What is the effect of the career development intervention module on the career indecision of Saudi high school students?

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iii. What is the effect of the career development intervention module on the career decision-making self-efficacy of Saudi high school students?
iv. Are there differences in the effect of the career development intervention module on career maturity, career indecision, and career decision-making self-efficacy based on gender, income level, and academic achievement?

2. Research Methods

2.1. Study design, sampling and data collection

This study adopted a quantitative research design to evaluate and investigate the effect of the career development intervention module on career maturity, career indecision, and career decision-making self-efficacy among Saudi Arabia high school students according to gender, financial income, and academic achievement. The quantitative approach is used to collect the data through a survey, which makes it suitable for this study due to its ability to answer the stated objectives and feasibility in terms of time and resources invested in the research, and it helps to generalize the findings (Creswell 2009). Therefore, this study used three quantitative instruments, namely a career maturity survey, a career indecision survey, and a career maturity self-efficacy survey. Besides, the current study utilized a quasi-experimental intervention as the study participants received training in career decision maturity. Scholars have discussed different types of quasi-experimental studies. According to Gall, Borg, and Gall (1996) and Creswell (2014), when there is one intervention group and there is not a control group in the study, this type of intervention is called a quasi-experimental design. Hence, the current study utilized the quasi-experimental design, which is suitable for the study because the data of the study questions were investigated through pre- and post-surveys. The comparison between the pre-and post-surveys helps to investigate the effect of the career decision module on Saudi high school student's career maturity, career indecision, and career decision self-efficacy. So, the current study is primarily quantitative in nature and it utilized a quasi-experimental pre-test/post-test intervention (Campbell et al., 1963; Heiman, 2002; Austin et al., 2005).

The demands for career intervention were ultimately help students to decide on what they need to study in their higher education, whereas such interventions must remain responsive to their needs and fluid career demands (Reese & Miller, 2006). Hence, the current work aimed to formulate a relevant career intervention that aims to improve students' career maturity, minimise career indecision, and career maturity self-efficacy. In the context of the research aims outlined, the selected quasi-experimental method was ultimately ideal as it was apparently 'the only way of definitively answering causal questions' (Davis & Bremner, 2006). Furthermore, the work aimed to assess whether these three constructs and their changes were due to the intervention and to what extent the changes became influenced.

Data collection was conducted using one intervention group. Three dependent variables were evaluated in testing the impact of the suggested career development intervention module on career decision-making self-efficacy, career maturity, and career indecision. Before the intervention, all recruited individuals were required to complete the pre-test measures on the first day of the career maturity program. Following this, the treatment group was oriented in a preliminary class with directives and guidance for the module completion. After the self-exploration intervention was successfully undertaken, all participants were go through a post-test, which included career maturity, career

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indecision, and career decision-making self-efficacy. The pre-surveys, as well as the post-survey measures, take up to ten minutes, and all the participants receive the pre- and post-surveys online through emails and the WhatsApp application.

To sum up, the current study adopted a quantitative research design since the data was collected through pre- and post-surveys. Also, the study employed a quasi-experimental intervention since the career maturity module was taught to one group only, and there is no control group in the study. The absence of the control group is because the experimental group took the pre- and post-surveys and this is enough to answer all the study questions and achieve the study objectives without the need for the control group. The sample of the current study is high school students of the Medina Province Centre in the academic year 2020-2021. The researcher selected the two biggest schools for boys and girls to carry out the study in these two schools. The current study is quasi-experimental, the number of participants is 40 students, of which 20 students are boys and 20 students are girls. The number of 40 participants is sufficient to carry out the study according to Austin et al. (2005). The study sample was representative of the high school students in Saudi Arabia because all high schools (excluding international schools) follow the same education system. The participation of the students was voluntary. That is, the research put promotion posters in the schools, and the researcher requested the manager of the school to inform the students about the career maturity module, and to let them know that participation is voluntary.

The selection of the participants was based on probability simple random sampling because all the students in the selected schools have the right to participate or reject participation in the career maturity module (Creswell, 2014). The selection of the students from among the 11th and 12th grades is because they were generally between 17 and 19 years old and at the developmental age characterised by self-assessment, role try-out, and occupational extension in school, leisure activities, and part-time work. Moreover, Inclusive and Exclusion Criteria were set as follows: High school students in Al Medina Al Munawara, Saudi Arabia. Male and female students whose ages are between 17 and 19 years old. They have not received any career maturity training before. Participants should be Saudi nationals because other students might have other social and cultural backgrounds. Currently, student living in Al Medina Al Munawara. However, International schools were excluded due to the use of multiple systems, and also students who have attended career development programs were excluded.

2.2. Intervention

The setting of the study was Madinah in Saudi Arabia, and the participants were from two schools. One school is for the boys and the other one is for the girls. The selection of the two schools is based on the that these two schools are the biggest in the city. So, the number of students in these schools is the highest in the city, and there are students from different locations who come to study in these schools. This ensures the participation of as many as possible students. Also, the selection of the two schools ensures the participation of boys and girls. Another important point is that these schools are public so students from different social statuses and different income families participated in the study. The recruitment of the students was through the schools' management. They made announcements for the students, and then the students had the freedom to participate in the study. In terms of the training, it was carried out by the researcher himself. The researcher is a qualified trainer in job consultant as he has delivered different workshops in different cities in Saudi Arabia. on career choice. Also, he has trained people of different

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age backgrounds. An important point is that the researcher is a certified trainer from the Technical and Vocational Training Centre in Saudi Arabia, which is the government centre that is responsible for career training. The qualification and experience of the researcher in career consulting qualify him to carry out the intervention of the study.

In terms of the content of the intervention, it was designed based on the needs analysis that was distributed to different students in the targeted population. Based on the findings of the need analysis survey, the intervention content was designed. The delivery of the content was online for different reasons. First, students live in different locations so some of them might not be able to attend the intervention if the time is determined to be outside the study hours. More importantly, the spread of COVID-19 is a big barrier to face to-face training. Therefore, online training was the best solution for the intervention. Accordingly, upon the design and the validation of the content from selected experts, the content was designed in PowerPoint slides and it was delivered to the students. The content is expected to contain training materials related to the study objectives as well as tasks that the students done during the training sessions.

2.3. Data analysis

Data was analysed using IBM SPSS Statistics Version 26. Data was summaries and described using frequency, percentage, mean and standard deviation (SD). Independent t-test was used to compare the means of Pre and Post Test Scores. The differences after the career maturity intervention module was analysed using multivariate analysis of variance (MANOVA).

3. Results and Discussion

The effect on Saudi high school students' career maturity as shown in Table 1. The overall findings of the survey shows that career development module has a significant.

Table 1: Analysis of Pre and Post Test Scores of Career Maturity Scale

CMS	Mean	N	SD	t-value	df	Sig. (2-tailed)
Pre-survey	31.30	40	4.28			
Post-survey	40.53	40	4.48	10.08	39	<0.001**

** Difference is significant at the 0.01 level (2-tailed)

Table 1 shows that the mean of the career maturity pre-survey is 31.37, while the mean value of the post-survey is 40.52. This shows that the mean value of the post-survey is greater than the mean value of the post-survey. The difference between the mean values between the pre and post surveys indicates that career maturity of Saudi high school students is improved after the implementation of the career maturity training. The result also, shows that there is a statistically significant difference in career maturity between the pre-survey and the post-survey (t-value = 10.081, p-value = 0.000 < 0.05). Consequently, it is concluded that career development module has a positive effect on career maturity of Saudi high school students. Table 2 shows the impact of the career development module on the career indecision.

Table 2 shows that the mean of the career indecision pre-survey is 80.30, while the mean value of the post-survey is 70.77. This shows that the mean value of the post-survey of career indecision is greater than the mean value of the post-survey. The difference

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between the mean values between the pre and post surveys indicates that career decision of Saudi high school students is improved after the implementation of the career maturity intervention. This shows that there is a statistically significant difference in career decision between the pre-survey and the post-survey (t-value = 3.219, p-value = 0.000 < 0.003), which is statistically significant at 0.05. Consequently, it is concluded that career maturity intervention has a positive effect on career decision of Saudi high school students. Table 3 shows the impact of the career development module on the career decision-making Self Efficacy.

Table 2: Analysis of Pre and Post Test Scores of Career Indecision

CMS	Mean	N	SD	t-value	df	Sig. (2-tailed)
Pre-survey	70.78	40	13.23			
Post-survey	80.30	40	15.50	3.219	39	0.003*

* Difference is significant at the 0.05 level (2-tailed)

Table 3: Analysis of Pre and Post Test Scores of Career Decision-Making Self Efficacy

CMS	Mean	N	SD	t-value	df	Sig. (2-tailed)
Pre-survey	91.2000	40	10.92680	3.505	39	0.001*
Post-survey	97.8000	40	13.22430			

* Difference is significant at the 0.05 level (2-tailed)

Table 3 shows that the mean value of the survey of career decision-making self-efficacy presurvey is 97.80, while the mean value of the postsurvey is 91.20. This shows that the mean value of the post-survey of career decision-making self-efficacy is greater than the mean value of the post-survey. The difference between the mean values between the pre and post surveys shows that career decision-making self-efficacy of Saudi high school students is improved after the implementation of the career maturity intervention. Also, there is a statistically significant difference in career decision between the pre-survey and the post-survey (t-value = 3.505, p-value = 0.001 < 0.003), which is statistically significant at 0.05. Consequently, it is concluded that career maturity intervention has a positive effect on career decision-making self-efficacy of Saudi high school students.

The last objective of this study aims to investigate if there are significant differences after the career maturity intervention module was implemented among the students based on the independent variables of gender and financial income and the dependent variables of career maturity, career indecision, and career decision-making self-efficacy. To answer this objective, MANOVA (multivariate analysis of variance), a version of univariate analysis of variance (ANOVA), was utilised by the researcher (Pallant, 2020). In an ANOVA test, we look for statistical differences in one continuous dependent variable using an independent grouping variable. The MANOVA takes this analysis a step further by aggregating numerous continuous dependent variables into a weighted linear combination or composite variable. If the newly created combination differs from the independent variable's unique groups or levels, the MANOVA was used to determine this. The MANOVA determines if the independent grouping variable simultaneously explains statistically significant amounts of data. The MANOVA determines if the independent grouping variable simultaneously explains a statistically significant amount of variation in the dependent variable.

Before moving to the findings using MANOVA, a descriptive analysis of factors is discussed first. Table 4 shows the descriptive analysis of independent variables, as there are 20

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males and 20 females, and the family income of 10 participants (25%) is less than SR 5000, the family income of 15 participants (37.5%) is between SR 5000 and SR 10000, the family income of 13 participants (32.5%) is between SR 11000 and SR 20000, and finally, 2 participants (5%) only have a family income more than SR 20000.

Table 4: Descriptive analysis of Between-Subjects Factors

	Value Label	N (%)
Gender	Female	20 (50
	Male	20 (50)
Family monthly income	Less 5000 SR	10 (25)
	5000-10000 SR	15 (37.5)
	11000-20000 SR	13 (32.5)
	Above 20000 SR	2 (5)

SR= Saudi Riyal

The multivariate test is shown in Table 5. The findings of the differences among the participants in the three scales based on gender and monthly income are not statistically significant as shown in Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root tests. That is, the values of the comparison among the independent variables (gender and monthly income), and the dependent variables (career maturity scale, career indecision scale, and career decision-making self-efficacy scale) are not significant at the p-value of 0.05.

Table 5: Multivariate Tests

Effect [a]	Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace .990	1115.778[b]	3.000	33.000	<0.001
	Wilks' Lambda .010	1115.778[b]	3.000	33.000	<0.001
	Hotelling's Trace 101.434	1115.778[b]	3.000	33.000	<0.001
	Roy's Largest 101.434 Root	1115.778[b]	3.000	33.000	<0.001
Gender	Pillai's Trace .053	.621[b]	3.000	33.000	0.607
	Wilks' Lambda .947	.621[b]	3.000	33.000	0.607
	Hotelling's Trace .056	.621[b]	3.000	33.000	0.607
	Roy's Largest .056 Root	.621[b]	3.000	33.000	0.607
Family monthly income	Pillai's Trace .260	1.109	9.000	105.000	0.363
	Wilks' Lambda .759	1.071	9.000	80.464	0.393
	Hotelling's Trace .292	1.027	9.000	95.000	0.425
	Roy's Largest .145 Root	1.693[c]	3.000	35.000	0.186

a. Design: Intercept + Gender + Family monthly income
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Based on the above findings, it is concluded that there are no statistically significant differences among the participants in terms of the effect of the career development intervention module on career maturity, career indecision, and career decision-making self-efficacy among high school students in terms of gender and family financial income. The final objective aimed to investigate if there are differences among the participants in terms of the effect of the career development intervention on three scales of career maturity, career indecision, and career decision-making self-efficacy according to the

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independent variables of gender and family financial income. The findings reported no significant differences among the students in terms of the comparison between the three scales based on gender and the family monthly income.

This objective aimed to investigate the differences due to the implementation of the career maturity intervention among the students according to the variables of gender and financial income with the dependent variables of career maturity, career indecision, and career decision-making self-efficacy. This research objective was achieved through running MANOVA (multivariate analysis of variance). The findings of this objective showed that there are no statistically significant differences among the participants in terms of the effect of the career development intervention on career maturity, career indecision, and career decision-making self-efficacy among high school students in terms of gender and family financial income.

Gender and ethnicity may hurt adolescent career decision-making (Wang & Degol, 2013). Various sources have noted that the processes are more sophisticated and limited for females than for males (Betz, 2014; Huttges & Fay, 2015), and numerous scholars have stated the need for career interventions to address gender influences on career development, particularly for women (Huttges & Fay, 2015). Even though there might be equal access to education and employment opportunities, numerous studies have found gender inequalities in perceived occupational efficacy, career choice, and preparation development (Bandura, 2006). Some scholars have argued that the relationship between gender and career decision is unrelated to career maturity and career decision (Taylor & Popma, 1990; Lau, Chung & Wang, 2021), which supports the findings of this research. In terms of family income, directly or indirectly influences the career path of high school students. That is, students who live in poverty face a high risk of deprivation and exclusion when it comes to preparing for their career path, as a result of limited financial and emotional support from their parents (Chung, 2019). A growing body of scholarship has expressed concern that the influence of parental background on kids' job development may become a mechanism producing social stratification and inequality (Lee, Lee, Kim & Lee, 2021).

The findings of this study revealed that there are no differences among students in career maturity, career indecision, and career decision-making self-efficacy in high schools in Saudi Arabia. This might be explained by the that people in KSA live without any needs in terms of daily life necessities. Such fulfilment of everyday life needs might explain the nonsignificant differences among students according to monthly income. In terms of the nonsignificant differences among students according to gender might be explained by the direction of the government to provide equal opportunities for males and females in terms of career paths, which supports the non-significant differences among high school students in Saudi Arabia.

5. Conclusion

The findings of this study revealed that there are no differences among students in career maturity, career indecision, and career decision-making self-efficacy in high schools in Saudi Arabia. This might be explained by the that people in KSA live without any needs in terms of daily life necessities. Such fulfilment of everyday life needs might explain the nonsignificant differences among students according to monthly income. In terms of the nonsignificant differences among students according to gender might be explained by the direction of the government to provide equal opportunities for males and females in

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terms of career paths, which supports the non-significant differences among high school students in Saudi Arabia.

Ethics Approval and Consent to Participate

Ethical approvals were obtained from Ethic Committee For Research Involving Human Subject at University of Putra Malaysia and Ministry of Education (MOH) in Saudi Arabia. All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki. The students informed that any information they provided was confidential. The students informed that participation in the study is entirely voluntary and they had the right to refuse to participate.

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Conflict of Interest

The authors declare no conflict of interest in this study.

References

Abdulrahman, K., Harden, R., & Patricio, M. (2012). Medical education in Saudi Arabia: an exciting journey. *Med Teach, 34*(1), 4-5. https://doi.org/10.3109/0142159x.2012.660509.

Ahmad, M. S. (2015). Oral Health Knowledge and Attitude among Core School Teachers of Madinah, Saudi Arabia. *The Journal of Contemporary Dental Practice, 16*(4), 275-279.

Alhamoudi, A., & Alnattah, A. (2018). Pharmacy education in Saudi Arabia: the past, the present, and the future. *Currents in Pharmacy Teaching and Learning*, *10*(1), 54-60. https://doi.org/10.1016/j.cptl.2017.09.014.

Ali, S. R., Yang, L. Y., Button, C. J., & McCoy, T. T. (2012). Career education programming in three diverse high schools: A critical psychology—case study research approach. *Journal of Career Development*, *39*(4), 357-385. https://doi.org/10.1177/0894845311398131

Aljadhey, H., Asiri, Y., Albogami, Y., Spratto, G., & Alshehri, M. (2017). Pharmacy education in Saudi Arabia: A vision of the future. *Saudi Pharmaceutical Journal, 25*(1), 88-92. https://doi.org/10.1016/j.jsps.2016.02.001

Almojali, A. I., Almalki, S. A., Alothman, A. S., Masuadi, E. M., & Alaqeel, M. K. (2017). The prevalence and association of stress with sleep quality among medical students. *Journal of Epidemiology and Global Health*, *7*(3), 169-174.http://dx.doi.org/10.1016/j.jegh.2017.04.005

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Almutairi, K. M., Alonazi, W. B., Vinluan, J. M., Almigbal, T. H., Batais, M. A., Alodhayani, A. A., and Alhoqail, R. I. (2018). Health-promoting a lifestyle of university students in Saudi Arabia: a crosssectional evaluation. *BMC Public Health, 18*(1), 1093. https://doi.org/10.1186/s12889-018-5999-z

Alswat, K. A., Al-Shehri, A. D., Aljuaid, T. A., Alzaidi, B. A., & Alasmari, H. D. (2017). The association between body mass index and academic performance. *Saudi Med J, 38*(2), 186-191. https://doi.org/10.15537/smj.2017.2.16320

Altamimi, D., Almuneef, M., Albuhairan, F., & Saleheen, H. (2017). Evaluating the relationship between child maltreatment and school performance in public schools in Saudi Arabia: A pilot study. *Scand J Public Health, 45*(5), 536-542. https://doi.org/10.1177/1403494817703211

Austin, E. W., Pinkleton, B. E., Hust, S. J., & Cohen, M. (2005). Evaluation of an American Legacy Foundation/Washington state department of health media literacy pilot study. *Health Communication*, *18*(1), 75-95. https://doi.org/10.1207/s15327027hc1801_4

Bahkali, S., Almaiman, A., Alsaleh, M., Elmetwally, A., & Househ, M. (2014). Web-based Health Educational Programme in Saudi Arabia. *Stud Health Technol Inform, 202*, 63-66.

Bandura, A. (1986). *Social shownations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (2006). Adolescent development from an agentic perspective. *Self-efficacy Beliefs of Adolescents*, *5*(1-43), 1-44.

Bernard-Phera, M. J. (2000). *The Relationship between career maturity and career decision-making selfefficacy expectations among disadvantaged learners*. [Doctoral thesis, University of Johannesburg].

Betz, N. E. & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice Behavior. *Journal of Social and Clinical Psychology; 4*(3), 279–289. https://doi.org/10.1521/jscp.1986.4.3.279

Betz, N. E. (2014). Contributions of self-efficacy theory to career counseling: A personal perspective. *The Career Development Quarterly, 52,* 340–353. https://doi.org/10.1002/j.2161-0045.2004.tb00950.x

Betz, N.E., & Luzzo, D. (1996). Career assessment and the career decisionmaking self-efficacy scale. *Journal of Career Assessment, 4*(4), 413-428. https://doi.org/10.1177/106907279600400405

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Ravenio books.

Choi, B. Y., Park, H., Yang, E., Lee, S. K., Lee, Y., & Lee, S. M. (2011). Comprehending career decision selfefficacy. *Journal of Career Development, 39*(5), 443–460. https://doi.org/10.1177/0894845311398042

Chua, A. (2002). The influence of social interaction on knowledge creation. *Journal of Intellectual capital*, *3*(4), 375-392. https://doi.org/10.1108/14691930210448297.

Chung, H. (2019). Career Planning Experience of the Post-adolescent in Low-income Families. *Journal Humanities and Social Science*, *10*, 453-468.

Citarella, A., Maldonado Briegas, J. J., Sánchez Iglesias, A. I., & Vicente Castro, F. (2020, October). Economic pressure and self-efficacy as independent predictors of academic grades and career indecision for Southern European middle school students: A confirming study. *Frontiers in Education, 5*, 1-8. https://doi.org/10.3389/feduc.2020.559465

Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches*. Sage publications.

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Creswell, J. W. (2009). Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, *3*(2), 95-108. https://doi.org/10.1177/1558689808330883

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Davis, A., & Bremner, G. (2006). The experimental method in psychology. In G.M. Breakwell, C. Fife-Schaw, Hammond, S., & J.A. Smith (Eds.), *Research methods in psychology* (pp. 64-87). London: Sage Publications.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.

Gati, I., Krausz, M., & Osipow, S. (1996). A taxonomy of difficulties in career decision-making. *Journal of Counselling Psychology, 43*, 510–526. https://doi.org/10.1037/0022-0167.43.4.510

Gushue, G. V., Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. (2006). Self-efficacy, perceptions of barriers, vocational identity, and the career exploration behavior of Latino/a high school students. *The Career Development Quarterly*, *54*(4), 307-317. https://doi.org/10.1002/j.2161-0045.2006.tb00196.x

Hackett, G., & Betz, N. (1981). A selfefficacy approach to the career development of women. *Journal of Vocational Behavior, 18*, 326-339. https://doi.org/10.1016/0001-8791(81)90019-1

Halasz, T.J., & Kempton, C.B. (2000). Career planning workshops and courses. In D.A. Luzzo (Ed.), *Career counseling of college students: An empirical guide to strategies that work* (pp. 157-170). Washington, D.C.: American Psychological Association.

Halawany, H. S., Al Badr, A., Al Sadhan, S., Al Balkhi, M., Al-Maflehi, N., Abraham, N. B., and Al Sherif, G. (2018). Effectualness of oral health education intervention among female core school children in Riyadh, Saudi Arabia. *Saudi Dent J, 30*(3), 190-196. https://doi.org/10.1016/j.sdentj.2018.04.001

Heiman, G. W. (2002). *Research methods in psychology (3rd ed.).* Houghton Mifflin Company.

Hu¨ttges, A., & Fay, D. (2015). The gender-dissimilar influence of work values on prospects in research careers*. Journal of Career Development, 42*, 524–539. https://doi.org/10.1177/0894845315582246

Jelas, Z. M., Salleh, A. M., Hamzah, N. A. R., Jani, R., Hamzah, H., Mahmud, M. I., & Abd Hamid, Z. (2013). *Research Report: Gender Analysis in Education.* Ministry of Education Malaysia.

Kassimi, M. A. (1983). Problems of undergraduate medical education in Saudi Arabia. *Medical Education, 17*(4), 233234. https://doi.org/10.1111/j.1365-2923.1983.tb01455.x

Lau, P. L., Chung, Y. B., & Wang, L. (2021). Effects of a career exploration intervention on students' career maturity and self-concept. *Journal of Career Development*, *48*(4), 311-324. https://doi.org/10.1177/0894845319853385

Lee, Y., Lee, G., Kim, J., & Lee, M. (2021). Equity in the career development of high school students in South Korea: The role of school career education. *Education Sciences*, *11*(1), 20. https://doi.org/10.3390/educsci11010020

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behaviour, 45*(1), 79–122. https://doi.org/10.1006/JVBE.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (1996). *Career development from a social cognitive perspective*. Jossey-Bas.

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Lopez, F.G., & Ann-Yi, S. (2006). Predictors of career indecision in three racial-ethnic groups of college women. *Journal of Career Development, 33*, 29 – 46. https://doi.org/10.1177/0894845306287341

Mohd Izwan Mahmud, Sidek Mohd Noah, Jamaludin Ahmad & Wan Marzuki Wan Ahmad. (2016). Modul Kesediaan Kerjaya Berdasarkan Teori Cognitive Information Processing (CIP). *Jurnal Kurikulum & Pengajaran Asia Pasifik, 4*(3), 59–75.

Nader, A. (1980). Special education in Saudi Arabia. *Spec Educ Forward Trends, 7*(4), 30. https://doi.org/10.1111/j.1467-8578.1980.tb00501.x

Nauta, M. M. (2004). Self-efficacy as a mediator of the relationships between personality factors and career interests. *Journal of Career Assessment*, *12*(4), 381-394. https://doi.org/10.1177/1069072704266653

Newman, J. L., Fuqua, D. R., & Minger, C. (1990). Further Evidence for the use of Career Sub-kinds in Defining Career Status. *The Career Development Quarterly, 39*(2), 178–188. https://doi.org/10.1002/j.21610045.1990.tb00838.x.

Ng, T. W., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel psychology*, *58*(2), 367-408. https://doi.org/10.1111/j.1744-6570.2005.00515.x

Omari, S., & Woodcock, A. (2012). Post occupancy evaluation of core schools in Saudi Arabia. *Work, 41*(1), 881-887. https://doi.org/10.3233/wor-2012-0258-881

Osipow, S. H. (1999). Assessing career indecision. *Journal of Vocational behavior*, *55*(1), 147-154. https://doi.org/10.1006/jvbe.1999.1704

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.

Park, I.-J., Rie, J., Kim, H. S., & Park, J. (2018). Influences of a Future Time Perspective–Based Career Intervention on Career Decisions. *Journal of Career Development*, *47*(1), 1-15. https://doi.org/10.1177/0894845318781043

Reese, R. J., & Miller, C. D. (2006). Influences of a University Career Development Course on Career Decision-Making Self-Efficacy. *Journal of Career Evaluation, 14*(2), 252–266. https://doi.org/10.1177/1069072705274985

Saeed, E., Assiri, A. M., AwadEljack, I., Aljasser, A. S., Alhuzimi, A. M., Assiri, A. A., ... & Al-Ammar, Y. A. (2017). Obesity and associated risk factors among students of health colleges of King Saud University, Saudi Arabia: A cross-sectional study. *JPMA. The Journal of the Pakistan Medical Association*, *67*(3), 355-359.

Salim, S. (1996). Guidance and counseling. Utusan Publications. https://books.google.com.my/books?id=0X4HOAAACAAJ

Şeker, G. (2020). Well-Being and career anxiety as predictors of career indecision. *Pamukkale University Journal of Education*, *5*(1), 262-275. https://doi.org/10.9779/pauefd.706983

Sullivan, S. E., & Baruch, Y. (2009). Advances in career theory and research: A critical review and agenda for future exploration. *Journal of management*, *35*(6), 1542-1571. https://doi.org/10.1177/0149206309350082

Talib, J. B. A., Mohamad, Z., & Wahab, N. A. (2015). Effects of career exploration module on career planning, career self-efficacy and career maturity among community college students. *Mediterranean Journal of Social Sciences*, *6*(6), 464-469. https://doi.org/10.5901/mjss.2015.v6n6s1p464

Taylor, K.M., & Popma, J. (1990). An examination of the relationships among career decision-making self-efficacy, career salience, locus of control, and vocational indecision. *Journal of Vocational Behavior, 37*, 17-31. https://doi.org/10.1016/0001-8791(90)90004-l

Vignoli, E. (2015). Career indecision and career exploration among older French adolescents: The specific role of general trait anxiety and future school and career

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anxiety. *Journal of Vocational Behavior*, *89*, 182-191. https://doi.org/10.1016/j.jvb.2015.06.005

Vinkenburg, C. J. and Weber, T. (2012). Managerial career patterns: A review of the empirical evidence. *Journal of Vocational Behavior, 80*(3), 592-607. https://doi.org/10.1016/j.jvb.2012.02.001

Walters, S., Watts, A. G., & Flederman, P. (2009). Navigating the National Qualifications Framework (NQF): the role of career guidance. *South African Journal of Higher Education*, *23*(3), 561-574. http://dx.doi.org/10.4314/sajhe.v23i3.51042

Wang, M. T., & Degol, J. (2013). Motivational pathways to STEM career choices: Using expectancy–value perspective to understand individual and gender differences in STEM fields. *Developmental review*, *33*(4), 304-340. http://dx.doi.org/10.1016/j.dr.2013.08.001

Wang, M., & Wanberg, C. R. (2017). 100 years of applied psychology research on individual careers: From career management to retirement. *Journal of Applied Psychology*, *102*(3), 546. http://dx.doi.org/10.1037/apl0000143

Xu, H., & Bhang, C. H. (2019). The structure and measurement of career indecision: A critical review. *The Career Development Quarterly*, *67*(1), 1-19. https://doi.org/10.1002/cdq.12159

Yusoff, N. R. B. N., Mahfar, M., & Saud, M. S. B. (2019). A review of social career cognitive theory (SCCT) for career decision self-efficacy (CDSE). *International Journal of Engineering and Advanced Technology*, *8*(5C), 808-817.

Zacher, H., Rudolph, C. W., Todorovic, T., & Ammann, D. (2019). Academic career development: A review and research agenda. *Journal of Vocational Behavior*, *110*, 357-373.https://doi.org/10.1016/J.JVB.2018.08.006

Zaitoun, M. F. (2018). Pharmacy Education in Saudi Arabia: The Current Status. *Currents in Pharmacy Teaching & Learning*, *10*(6), 673-674. https://doi.org/10.1016/j.cptl.2018.02.012

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