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THE PERCEPTION OF FACULTY OF HEALTH SCIENCES (FSK) STUDENTS TOWARDS PROJEK TUNAS FSK AND THE CONVENTIONAL MENTOR-MENTEE PROGRAMME IN FSK, UNIVERSITI KEBANGSAAN MALAYSIA

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Abstract

The mentor-mentee programme was started in Universiti Kebangsaan Malaysia (UKM) in the early 90's and involved monitoring students (mentee) academic performances with the lecturer (mentor). The mentor-mentee programme in the Faculty of Health Sciences (FSK), UKM, needs improvement to stay relevant to students. Therefore, some modifications were made by implementing a new programme known as Projek Tunas FSK, which is more comprehensive and employs the Modul Mentor Berkesan© in rebranding the existing mentor-mentee programme. Our research was conducted to study the perception of FSK, UKM students on the conventional mentor-mentee programme and Projek Tunas FSK. The Year 2 ($n = 114$) and Year 4 students ($n = 84$) from the 2017-2018 session were given questionnaires consisting of three parts: their demographic data, academic performance, and questions related to perception (relationship and communication with their mentors). The findings for perception showed that most students had two to three mentor-mentee sessions that lasted for one hour or less, and their mentors communicated with them at a neutral level. Other findings showed that (i) students under Projek Tunas FSK have significantly higher academic performance (measured using CGPAs) compared to students under the conventional mentor-mentee programme; (ii) the number of mentor-mentee sessions were significantly weakly correlated with the students CGPAs; (iii) there was an association between previous academic background and academic year of FSK students; (iv) there was an association between students in both types of mentor-mentee programmes and CGPAs. In

conclusion, restructuring the conventional mentor-mentee programme to Projek Tunas FSK leads to better perception in FSK students.
Keywords: Faculty of Health Sciences (FSK), mentor-mentee, Modul Mentor Berkesan®, perception, Projek Tunas FSK

Abstrak

Program mentor-mentee bermula di UKM sejak awal 90-an dan melibatkan pemantauan melalui prestasi akademik pelajar (mentee) bersama pensyarah (mentor). Program mentor-mentee di Fakulti Sains Kesihatan (FSK), UKM memerlukan penambahbaikan supaya kekal relevan kepada pelajar. Oleh itu, beberapa penambahbaikan dilakukan melalui pelaksanaan program baru yang dikenali sebagai Projek Tunas FSK yang lebih menyeluruh dan menggunakan Modul Mentor Berkesan© dalam penjenamaan baru program mentor-mentee yang sedia ada. Kajian ini dijalankan untuk mengkaji persepsi pelajar FSK, UKM terhadap program mentor-mentee secara konvensional dan Projek Tunas FSK. Pelajar Tahun Kedua ($n = 114$) dan Tahun Keempat ($n = 84$) sesi 2017-2018 telah diberi borang soal selidik yang terdiri daripada tiga bahagian termasuk data demografi, tahap pencapaian akademik dan soalan berkaitan persepsi (pertalian dan komunikasi antara mentor dan mentee). Hasil kajian untuk persepsi menunjukkan bahawa majoriti pelajar menyertai dua hingga tiga sesi mentor-mentee yang berlangsung selama satu jam atau kurang, dan mentor berkomunikasi dengan mereka pada tahap neutral. Manakala hasil kajian yang lain menunjukkan bahawa (i) pelajar dalam Projek Tunas FSK menunjukkan prestasi akademik (diukur menggunakan PNGK) tinggi secara signifikan berbanding dengan pelajar dalam program mentor-mentee secara konvensional; (ii) bilangan sesi mentor-mentee mempunyai korelasi yang lemah tetapi signifikan dengan PNGK pelajar; (iii) terdapat hubungan antara latarbelakang pendidikan dan tahun pengajian pelajar FSK; (iv) terdapat hubungan antara pelajar dalam kedua-dua jenis program mentor-mentee dengan PNGK. Kesimpulannya, penstrukturan semula program mentor-mentee secara konvensional kepada Projek Tunas FSK memberi persepsi yang lebih baik dalam kalangan pelajar FSK.
Kata kunci: Fakulti Sains Kesihatan (FSK), mentor–mentee, Modul Mentor Berkesan, persepsi, Projek Tunas FSK

1.0 INTRODUCTION

In health sciences, mentorship has a vital symbiotic relationship. The mentor, usually more experienced, highly regarded and empathetic, works closely with a mentee to teach, guide, support, and facilitate professional growth and development. Mentees do not just receive input from their mentors. They are also active participants that shape the relationship (Milner & Bossers, 2004; Ssemata et al., 2017). While mentoring can provide valuable support for

students at critical points in their student life, it offers a host of other benefits for both mentor and mentee. Mentoring, which can be viewed as a long-term process, is a mutual way of learning where experiences are shared, providing mentees room to develop their insights. This allows both mentor and mentee to develop transferable skills that will help them at university and beyond. Mentoring sessions are also a platform to raise questions, concerns, or problems to someone who listens, supports, informs, and sympathises without judgment, criticism, advice, or comparison (Leidenfrost et al., 2011; Livingstone & Naismith, 2018). Graduate students with mentors are also likely to be more satisfied with their university, be more involved in many professional organisations, and have a stronger sense of professional identity (Smith, 2014). In fact, mentoring of the highest quality is an essential part of students' undergraduate education that leads to their degree completion, in addition to being an investment on a personal, professional and institutional level (Waldron, 2021).

At its essence, mentoring involves a supportive relationship where mentors guide and help the development of mentees in cognitive, social and emotional aspects (Carpintero, 2015). However, in FSK, the conventional mentor-mentee programme that was previously employed only targeted the academic aspects. Therefore, the conventional mentor-mentee programme was rebranded to Projek Tunas FSK using the Modul Mentor Berkesan© as a tool for mentors to provide a more holistic approach towards mentoring students. This is in line with a study by Ssemata et al. (2017), which identified that both mentors and mentees agreed that there needed to be a more formalised and structured mentoring programme. Hence, this study aimed to compare the perception of FSK students towards Projek Tunas FSK and the conventional mentor-mentee programme in FSK, Universiti Kebangsaan Malaysia. In this study, the perception is from the students' perspective on how they think or feel about the number and duration of mentor-mentee sessions as well as regularity in communication with their mentors.

2.0 MATERIALS AND METHODS

A cross-sectional study was conducted among students of the Faculty of Health Sciences (FSK), Universiti Kebangsaan Malaysia (UKM), Kuala Lumpur. Our study involved Year 2 students in Projek Tunas FSK and Year 4 students in the conventional mentor-mentee programme from the 2017-2018 session. During this session, there were 220 students in Year 2 and 208 students in Year 4.

The comparison between Projek Tunas FSK and the conventional mentor-mentee programme are as follows. In the case of Projek Tunas FSK, it was initially implemented during the 2016-2017 academic session with a programme duration spanning for the whole 4 years

of all FSK students' undergraduate studies. Next, the mentor-mentee meetings are carried out 2 – 3 times per semester, up until graduation and slots are allocated in the students' timetable. The issues discussed during the mentor-mentee session are not solely academic-centred, as it also involves other components such as student well-being, motivation sessions and career advice, to name a few. The mentors guiding their mentees under Projek Tunas FSK used our Modul Mentor Berkesan© as a mentoring tool. Restructuring the mentor-mentee programme involved improved mentors' communication, leadership, stress, and time management skills. Hence, Year 2 students were chosen because they were exposed to the new mentoring program in their 1st year, with mentors that have been trained using Modul Mentor Berkesan©.

As for the conventional mentor-mentee programme, it was initially implemented in 1999 with a programme duration spanning for the whole 4 years of selected FSK students' who were weak in their undergraduate studies. Next, the mentor-mentee meetings are carried out at the convenience of both mentor and mentee to improve the academic achievement of weak students only. Besides that, the issues discussed during the mentor-mentee sessions were solely academic-centred. Usually, the relationship with mentors stops when the mentees enter Year 2 due to certain factors, such as the time limit for meetings. There was no mentoring tool used as a guide for the mentors back then. Therefore, Year 4 students were chosen because they were exposed to the conventional mentor-mentee program throughout their 4 years of study.

The study was conducted on randomly selected students in Year 2 and Year 4 from the many undergraduate programmes in FSK using cluster random sampling. The sample size calculated was 198 using the formula by Krejcie & Morgan (1970) as shown below whereby n is the required sample size; χ^2 is the table value of chi-square for 1 degree of freedom at the desired confidence level; N is the population size; P is the population proportion (assumed to 0.5 since this would provide the maximum sample size); Δ is the degree of accuracy expressed as a proportion. There was no dropout rate.

$$n = \frac{X^2 NP\,(1-P)}{\Delta^2\,(N-1) + X^2 P\,(1-P)}$$

$$n = \frac{3.84^2(428)(0.5)\,(1-0.5)}{0.1^2\,(428-1) + 3.84^2(0.5)\,(1-0.5)}$$

$$n = \frac{1577.7792}{7.9564}$$

$$n = 198.30 \approx 198$$

A total of 198 questionnaires were distributed to Year 2 and Year 4 students of FSK, UKM. The questionnaire used was adapted and modified from Salinitri (2004). From the previous pilot study conducted for the questionnaire, Cronbach's alpha was 0.70 (p > 0.5). Therefore, the questionnaires distributed were valid and reliable. The questionnaire consisted of 4 parts which were demographic information (Part 1), students' prior knowledge and awareness of Projek Tunas FSK and the conventional mentor-mentee programme (Part 2), students (mentee) relationship with their mentors and the benefits that they have gained from the mentoring programme (Part 3 and 4). The questionnaire also used the 5-points Likert scale (strongly agree, agree, neutral, disagree and strongly disagree). In addition, open-ended questions and multiple-choice questions were also used. There was no ethical clearance for this study, but students were required to read the study information sheet and sign a consent form before answering the questionnaire, and they had the choice to withdraw from the study at any time.

The first objective of this study was to measure the perception of FSK students towards Projek Tunas FSK and the conventional mentor-mentee programme based on their communication and relationship with their mentors, using descriptive analysis. The second objective was to compare the academic performance (CGPAs) between FSK students in Projek Tunas FSK and the conventional mentor-mentee programme using an independent t-test. Next, a Spearman's rho correlation was conducted to correlate the perception of FSK students in both mentor-mentee programmes with CGPAs. Finally, a chi-square test was conducted to determine associations between (i) academic background and academic year of FSK students, and also between students' demographic variables such as (ii) gender, (iii) parents' income, and (iv) academic performance and type of mentor-mentee programme.

As for statistical tests, normality tests using the Kolmogorov-Smirnov test were performed before any statistical analysis was carried out, as our sample size was more than 100.

3.0 RESULTS AND DISCUSSION

3.1 Demographic profile of FSK students

Table 1 shows the demographic profile of FSK students. Most FSK students involved in the study were female (69.7 %) instead of male (30.3 %). Next, there were 57.6 % of Year 2 students and 42.4 % of Year 4 students. Regarding previous academic background, most FSK students were from regular daily schools (81.3 %), and 18.2% came from fully

boarding/residential schools. Besides that, most FSK students (53 %) also came from parents with RM 3000 and below income.

Table 1: *Demographic profile of FSK students*

	FSK students	
Demographic Profile	Frequency (N)	Percentage (%)
Gender		
Male	60	30.3
Female	138	69.7
Academic Year of study		
Year 2	114	57.6
Year 4	84	42.4
Previous academic background		
Religious Tahfiz Schools	1	0.5
Regular Daily Schools	161	81.3
Fully Boarding/Residential Schools	36	18.2
Parents income		
RM 3000 and below	105	53
RM 3001- RM 5000	55	27.8
RM 5000 and above	36	18.2

3.2 Perception of FSK students towards Projek Tunas FSK and the conventional mentor-mentee programme

FSK students were asked in the questionnaire which mentor-mentee programme they were currently participating in. As shown in Figure 1, 11.1 % of FSK students were aware of Projek Tunas FSK. At the same time, 88.9 % of FSK students were mindful of the conventional mentor-mentee programme. This trend was expected as Projek Tunas FSK was newly launched during the 2016-2017 session. The lecturers acting as the mentors were more aware of the program, as they were trained using Modul Mentor Berkesan©. The students (mentees) only participate in the program.

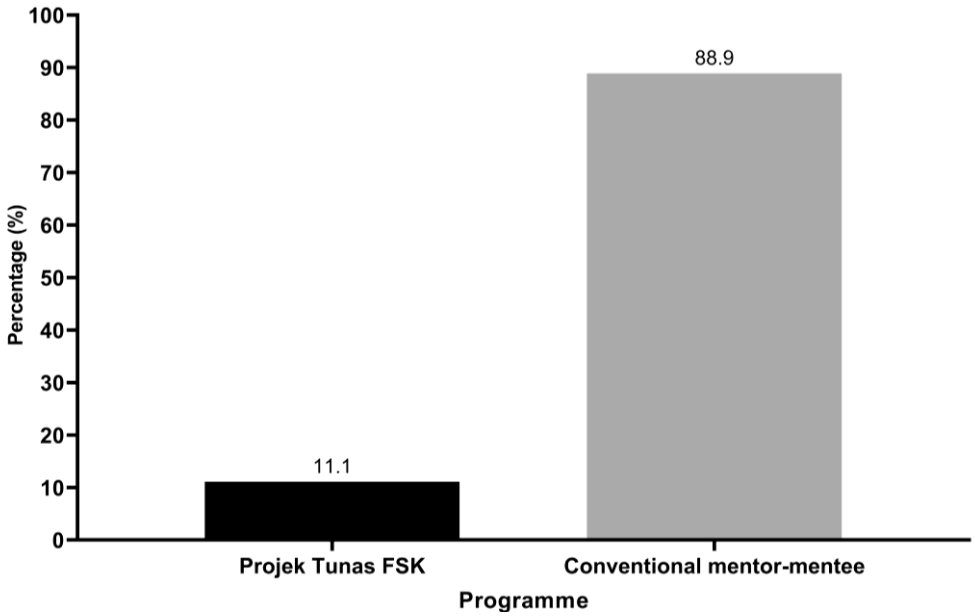

Figure 1: Awareness of FSK students regarding Projek Tunas FSK and the conventional mentor-mentee programme

Figure 2 shows the number of mentor-mentee sessions throughout the FSK students' current year of study. Most students (50 %) had two to three sessions with their mentors. Next, figure 3 shows the duration per mentor-mentee session, whereby 58.1 % of students had sessions that lasted for one hour or less. Then, figure 4 assesses how regular mentors communicated with their mentees (students). Only 5.1% of the students strongly agreed that their mentor spoke regularly with them, while 35.4% just agreed with the statement. About 40.4% gave a neutral answer, and 6.1% strongly disagreed, indicating that their mentor did not communicate regularly.

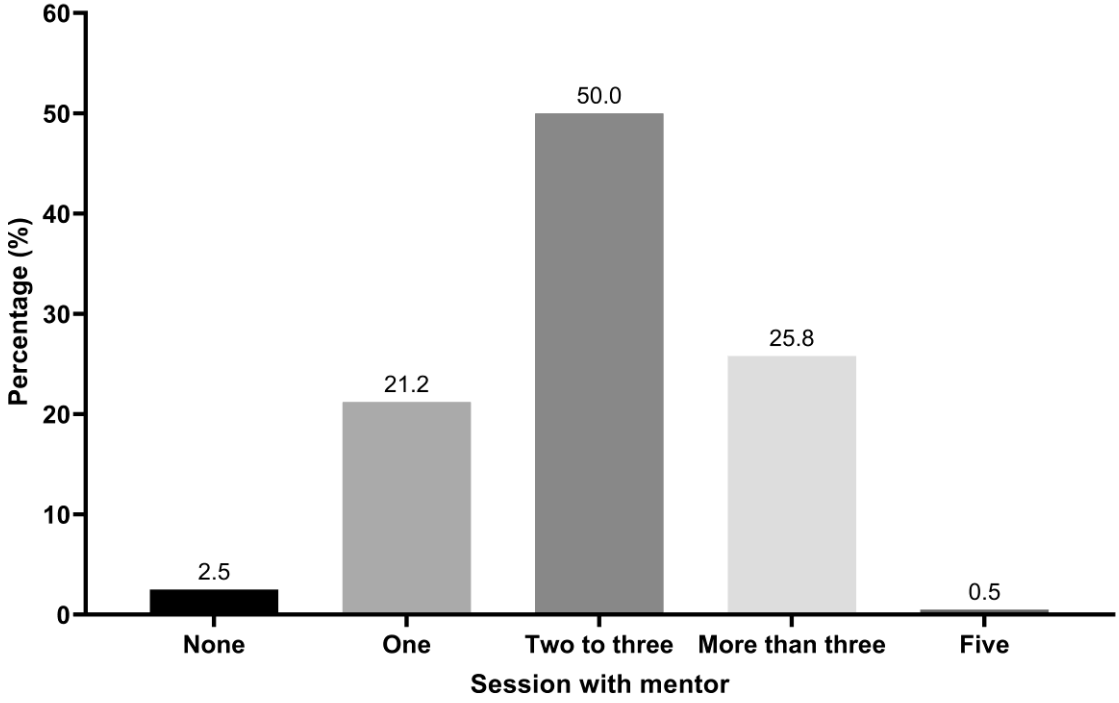

Figure 2: Number of mentor-mentee sessions throughout the FSK students' current year of study

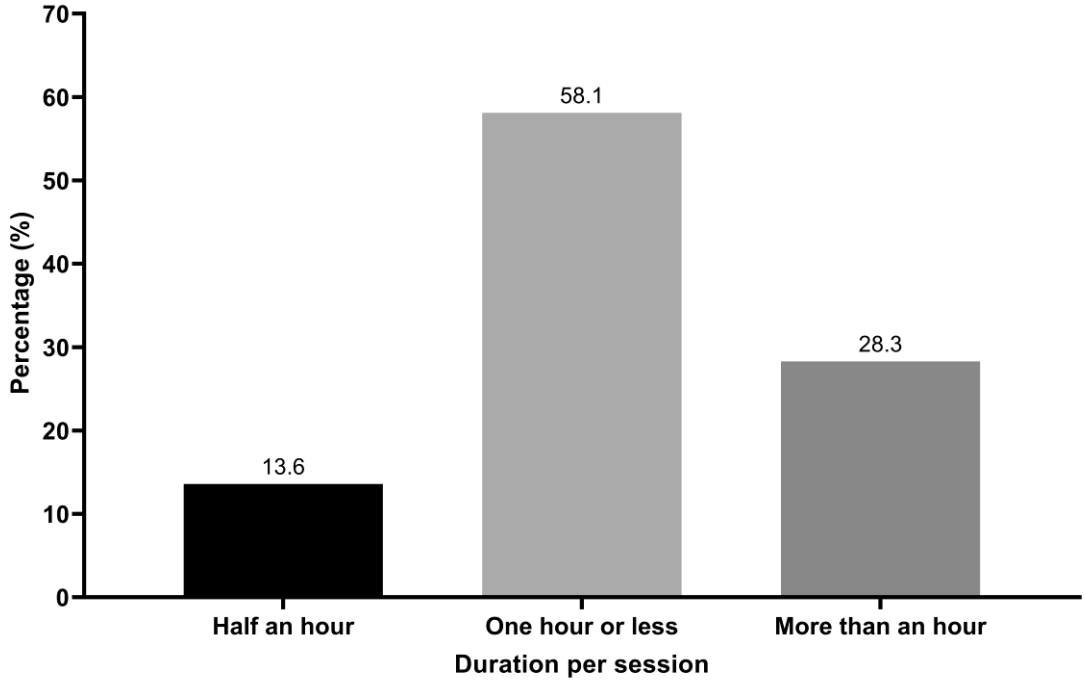

Figure 3: Duration per mentor-mentee session of FSK students

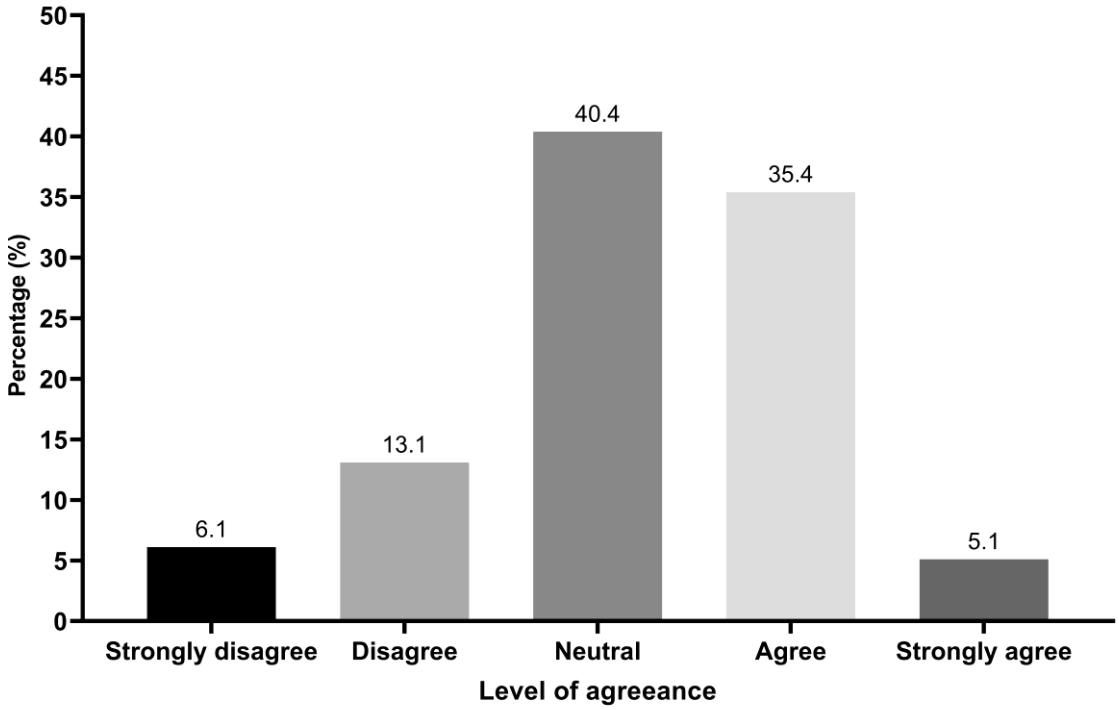

Figure 4: Regularity in communication between mentor and mentee

According to Salinitri (2005), mentoring creates an enduring and meaningful relationship with another person. In the same study, the mentors were required to guide mentees in learning enhancement and motivate them to set realistic goals in educational and social aspects. The mentees in the study reported that mentors (i) encouraged the expression of their feelings about university academic and social experiences, (ii) effective resource facilitators in university, (iii) taught skills such as time management and designing their schedules, (iv) effectively helped in developing study strategies and other ways to boost academic performance, (v) provided good guidance in the exploration of realistic options and attainable academic plus career objectives and (vi) effective role models by sharing their personal experiences. This study shows the understated benefits of mentor-mentee sessions, which should be highlighted from time to time to encourage the active participation of students in programmes such as Projek Tunas FSK.

In contrast to a study by Goodman-Wilson (2021), colleges that have academic-based mentoring programs require students to meet their mentors a minimum of once per semester. Despite that, in the same study, students contacted their mentors more frequently because they felt comfortable seeking advice for personal issues. Ultimately, ease and comfort in the mentor-mentee relationship best predicted the number of mentor-mentee sessions.

On another note, fostering relationships founded on trust between mentors and their mentees are also meaningful, especially in mental health issues. Examples include students getting off track, losing patience, being depressed, anxious, stressed or being at a stage where their judgment is clouded. Such situations require the care and attention of mentors, whereby they could redirect students to seek help, if necessary. Hence, the mentor-mentee system acts as a safety net for students in an era of increasing awareness regarding mental health (Carpintero, 2015; Goodman-Wilson, 2021; Honkimäki & Tynjälä, 2018).

3.3 Academic performance between FSK students in Projek Tunas FSK and the conventional mentor-mentee programme

The data for academic performance (cumulated grade points average, CGPAs) between FSK students in Projek Tunas FSK and the conventional mentor-mentee programme were normally distributed.

An independent t-test was conducted to compare the academic performance (CGPAs) between FSK students in Projek Tunas FSK and the conventional mentor-mentee programme. As shown in Table 2, the academic performance (CGPAs) mean of FSK students in Projek Tunas FSK ($n = 114$) was 3.3915, and the academic performance (CGPAs) mean of FSK students in the mentor-mentee programme ($n = 84$) was 3.2379. Levene's Test for Equality of Variances was not significant ($F = 0.001, sig. > 0.05$), indicating that the assumption of homogeneity of variances had not been violated. Therefore, equal variance was assumed. The t-test for equal variances assumed was statistically significant, $t\,(196) = 3.027, p = 0.003$, meaning a significant difference between CGPAs and both types of mentor-mentee programmes. Hence, students under Projek Tunas FSK have higher CGPAs than students under the conventional mentor-mentee programme.

Table 2: *Comparison of academic performance (CGPAs) between FSK students in Projek Tunas FSK and the conventional mentor-mentee programme*

	Year of study	Programme	N	Mean	Standard deviation	t	P
Academic Performance (CGPAs)	2	Projek Tunas FSK	114	3.3915	0.34731	3.027	0.003
	4	Conventional mentor-mentee	84	3.2379	0.36062		

3.4 Correlation between perception of FSK students in both types of mentor-mentee programmes with academic performance

A Spearman's rho correlation coefficient (r_s) was calculated to assess the correlation between (i) number of mentor-mentee sessions and academic performance (CGPAs), (ii) duration per mentor-mentee session and CGPAs, and (iii) regularity of communication between mentor and mentee and CGPAs. Before calculating r_s, the assumption for normality was violated. Hence, non-parametric statistical analysis was carried out. The assumptions for Spearman's rho, independent and measurement scale, were assessed. It was found to support all variables.

As shown in Table 3, the bivariate correlation between the number of mentor-mentee sessions and CGPAs was positive but weak and significant $r_s\,(198) = 0.167, p = 0.019$. Therefore, the number of mentor-mentee sessions were weakly correlated with the students CGPAs. Next, the bivariate correlation between the duration per mentor-mentee session and CGPAs was positive but weak and insignificant $r_s\,(198) = 0.009, p = 0.899$. Finally, the bivariate correlation for regular communication between mentor and mentee and CGPAs was positive but weak and insignificant $r_s\,(198) = 0.061, p = 0.391$.

A study by Rodger & Tremblay (2003) found that the participation of students in a peer-mentoring program was not associated with academic motivation level. Still, students who frequently participated in peer-mentoring (Modified Peer Mentor Group) showed significantly higher grades. However, more research is necessary to see the relationship between academic mentors and their influence on the mentees CGPAs.

Table 3: *Correlation between number of mentor-mentee sessions with academic performance using Spearman's rho*

Variable	N	Spearman's rho (r_s)	Sig. (2-tailed)
Number of mentor-mentee sessions vs CGPA	198	0.167	0.019
Duration per mentor-mentee session vs CGPA	198	0.009	0.899
Regularity in communication between mentor and mentee vs CGPA	198	0.061	0.391

3.5 Associations using chi-square test

Table 4 shows the number and percentage of students in Year 2 and Year 4 that attended regular daily/religious Tahfiz schools and fully boarding/residential schools. It can be seen that a majority of students in Year 2 (50 %) and Year 4 (31.8 %) attended regular daily/religious Tahfiz schools, compared to the students who were from the fully boarding/residential schools. One contributing factor was that there were more students from regular daily/religious Tahfiz schools (2256 schools) compared to boarding/residential schools (69 schools) in Malaysia (Ministry of Education Malaysia, 2021). This was followed by a chi-square test that showed a significant association between academic background and academic year of FSK students at $\chi^2\,(1, N\, =\, 198)\, =\, 4.559, p\, <\, 0.05, \phi\, =\, -0.152.$

Table 4: *Academic background and academic year of FSK students in Projek Tunas FSK and conventional mentor-mentee programme*

Academic Background		Academic year		Total
		Year 2 (Projek Tunas FSK)	Year 4 (Conventional mentor-mentee)	
Regular daily/religious Tahfiz schools	N	99	63	162
	% of Total	50.00 %	31.80 %	81.80 %
Fully boarding/residential schools	N	15	21	36
	% of Total	7.60 %	10.60 %	18.20 %
Total	N	114	84	198
	% of Total	57.60 %	42.40 %	100.00 %

Amasuomo (2014) further proved in his study that students' type of secondary school affected their academic performance. The institutional environment that students were exposed to in adolescence sets the parameters of their learning experience. The students' learning experience also depends on the number and quality of school facilities, affecting the students' accomplishments and performance.

Table 5 shows the number and percentage of male and female students in Projek Tunas FSK and the conventional mentor-mentee programme. A common trend is seen whereby there were more female students than male students, which is in line with the current status quo where there are more female students than male students in FSK. This was followed by a chi-square test that showed no association between both types of mentor-

mentee programmes and the gender of students at $\chi^2\ (1, N\ =\ 198)\ =\ 3.011, p\ >\ 0.05, \phi\ =\ -0.123$.

Table 5: *Gender and FSK students in Projek Tunas FSK and conventional mentor-mentee programme*

Programme		Gender		Total
		Male	Female	
Projek Tunas FSK	N	29	85	114
	% of Total	14.6 %	42.9 %	57.6 %
Conventional mentor-mentee	N	31	53	84
	% of Total	15.7 %	26.8 %	42.4 %
Total	N	60	138	198
	% of Total	30.3 %	69.7 %	100 %

In contrast, a study by Sadler-Smith (1996) noted that gender and age are possibly important factors for educators in higher education institutions to consider when designing and delivering their programmes and offering guidance to students. It was also highlighted in the same study that regardless of gender and age, students in a higher education system are required to (i) take the initiative to learn, (ii) move away from over-relying on lecturers, (iii) accept that a student-centred approach towards learning is active learning, and (iv) accept that learning is for their intellectual growth, fulfilment and pleasure, making it beyond their assessment purposes. These requirements can be inculcated into students with the help of Projek Tunas FSK mentor-mentee sessions, which gives more than the conventional mentor-mentee programme.

Table 6 shows the number and percentage of FSK students based on their parents' income. It can be seen that a majority of students had parents with an income of RM 3000 and below. This was followed by a chi-square test that showed no association between students in both types of mentor-mentee programmes and their parents' income at $\chi^2\ (2, N\ =\ 198)\ =\ 0.397, p\ >\ 0.05, \phi\ =\ 0.045$.

Table 6: *Parents' income and FSK students in Projek Tunas FSK and conventional mentor-mentee programme*

Programme		Parents' income			Total
		RM 3000 and below	RM3001 - RM5000	RM5000 and above	
Projek Tunas FSK	N	62	30	22	114
	% of Total	31.30 %	15.20 %	11.10 %	57.60 %
Conventional mentor-mentee	N	45	25	14	84
	% of Total	22.70 %	12.60 %	7.10 %	42.40 %
Total	N	107	55	36	198
	% of Total	54.00 %	27.80 %	18.20 %	100.00 %

Table 7 shows the number and percentage of FSK students based on their academic performance (CGPAs). It can be seen that with the Projek Tunas FSK, there were fewer students with CGPA 2.51 – 3.00 and more students with CGPA 3.01 – 3.50 and above than 3.50, as opposed to the students who are in the conventional mentor-mentee programme. This was followed by a chi-square test that showed a significant association between students in both types of mentor-mentee programmes and academic performance at $\chi^2\,(2, N = 198) = 11.016, p < 0.05, \phi = 0.236$. Hence, it can be said that an increase in the number of Projek Tunas FSK mentor-mentee sessions could provide more assistance and guidance in students' academic performance.

Table 7: *Academic performance (CGPAs) and FSK students in Projek Tunas FSK and conventional mentor-mentee programme*

Programme		CGPA			Total
		2.51 - 3.00	3.01 - 3.50	More than 3.50	
Projek Tunas FSK	N	14	57	43	114
	% of Total	7.1 %	28.8 %	21.7 %	57.6 %
Conventional mentor-mentee	N	22	46	16	84
	% of Total	11.1 %	23.2 %	8.1 %	42.4 %
Total	N	36	103	59	198
	% of Total	18.2 %	52 %	29.8 %	100 %

Most students, including those who performed well in secondary schools, enter university unprepared for the required level of work to keep up with intellectual demands and expectations. These students would need assistance to adapt to a new and different environment as they tend to be naive or oblivious regarding the scope of undergraduate education (Conley, 2003; Nagda et al., 1998; Salinitri, 2005). Academic success regarding college students encompasses personal characteristics such as academic skills, goals, mental ability and motivation, and environmental factors that bring about an interdependent system (Dennis et al., 2005; Muuss et al., 1996). These aspects are tackled with Projek Tunas FSK. This programme provides moral support counselling and helps students in stress management, improving students' academic performance better than the conventional mentor-mentee programme.

4.0 CONCLUSION

Projek Tunas FSK has a better perception by FSK students than the conventional mentor-mentee programme because students under Projek Tunas FSK have significantly higher CGPAs compared to students under the conventional mentor-mentee programme. The significant associations further supported this with CGPAs and academic background. However, the number of mentor-mentee sessions were significantly weakly correlated with the students CGPAs.

5.0 ACKNOWLEDGEMENTS

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