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Subjective Well-Being and Its Relation to Academic Performance among Students in Medicine, Dentistry, and Other Health Professions

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Abstract: Subjective well-being is defined as a person's cognitive and affective evaluations of his or her life. This study aims to investigate the differences in the domains of subjective well-being based on gender, type of school, and academic performance. Additionally, the study aimed to determine the factors (socio-demographic variables, including the academic performance of the students) that are predictive of subjective well-being. Subjective well-being was assessed using a questionnaire which included the Satisfaction with Life Scale (SWLS), which measured the respondent's life satisfaction, the Scale of Positive and Negative Experience (SPANE), which consisted of six positive and negative emotions, and, lastly, the Flourishing Scale (FS), which measured the respondents' self-perceived success. Data were collected, transformed into a linear scale, and exported into SPSS version 24, where t-tests, one-way analysis of variance, Pearson correlation, and stepwise regression were performed. Of the total of 535 participants, the majority were females (383 = 71.6%) and studying in a school of medicine (31.8%). With respect to the SWLS and FS, a significant difference was reported among students based on the type of school and their academic performance ($p < 0.05$). While comparing the differences in the SPANE, a significant difference was recorded based on academic performance. Among the domains of subjective well-being, only the SPANE showed a significant association with academic performance. Greater subjective well-being correlates with higher academic performance, indicating that subjective well-being is an important aspect of a student's academic life; provisions can be made by paying more attention to those who showed poor academic performance during and at the end of each semester.

Keywords: subjective well-being; academic performance; Satisfaction with Life Scale (SWLS); Scale of Positive and Negative Experience (SPANE); grade point average (GPA); medical sciences; Flourishing Scale (FS); psychological

1. Introduction

The term subjective well-being (SWB) is defined as “a person’s cognitive and affective evaluations of his or her life” [1]. According to recently published research from Trinidad and Tobago, medical students are experiencing increased levels of stress, including burnout and depressive symptoms [2,3]. In addition, low SBW among the students is shown to be associated with multiple factors that hurt professional development, such as unhealthy lifestyles, mental health problems, and academic failure [4]. Well-being is essential for medical students to succeed. In addition to being high achievers and caring for patients, the health of the students themselves is vital. The stressful atmosphere brought upon them by intense studies is a negative contributor to psychological health, and can thus negatively affect a student’s academic performance [5]. An interesting study by Gutiérrez among 870 students in the Dominican Republic found that teachers’ autonomy has some important direct effects on engagement and self-efficacy, and it was also a direct predictor of SWB. Self-efficacy and engagement had some indirect effects on SWB, and grades were explained by the impact of self-efficacy and cognitive and emotional engagement. The study concluded that self-efficacy and engagement mediate the effects of support of autonomy on the academic achievement of students [6]. A research study by Borello found that SWB was positively related to students’ final grades; additionally, an independent-sample t-test showed a significant difference of more than one letter grade between the mean final grades of students with higher-than-average SWB over the mean final grades of students with lower-than-average levels of SWB [7]. A Pakistani study by Bhukari et al. aimed to determine the association between academic performance and subjective well-being (depression, subjective happiness, and life satisfaction) among 300 university students using the Subjective Happiness Scale (SHS) and Satisfaction with Life Scale, and (SWLS) found that academic performance is significantly negatively related to depression, whereas it is significantly positively related to subjective happiness and life satisfaction [8].

A Georgian study among 252 university students assessed the relationship between psychological well-being and academic performance, and reported that students using task-oriented coping strategies had higher levels of well-being, personal growth, and grade point averages (GPAs), indicating a directly proportional relationship between higher levels of psychological well-being and exceptional academic performance [9]. Tuna et al. examined the association between subjective well-being (SWB) and academic success of first-year university students using the Positive and Negative Affect Schedule (PANAS) and Satisfaction with Life Scale (SWLS), and found that there is a correlation between academic performance and SWB. In addition, academic and social integration, institutional fit, and commitment are among the factors that foster academic performance, whereas income, institutional fit, and commitment enhance SWB [10]. Psychological well-being is just a component of SWB. Factors including sleep, time spent on social media, and life conditions, for example, are other components of SWB and heavily influence the academic performance of students. A study by Mohammed et al. [11] assessed lifestyle’s effect on academic performance among eighty-nine (89) medical students at the University of Tabuk. Socio-demographic factors, learning styles, weekend learning activities, sleep duration, and time spent on social media were factors used to determine the performance of the students. The study concluded that students with an applaudable academic performance were spending less than 2 h on social media, sleeping 6 to 9 h per day, and studying on weekends, indicating that high levels of subjective well-being respond positively to academic performance with higher GPA. Since there is growing evidence of increased stress, burnout, and depression among the medical students at the Faculty of Medical Sciences, University of the West Indies, this study aimed to investigate the differences in the domains of subjective well-being based on gender, type of school, and academic performance. Additionally, the study attempted to determine the factors (socio-demographic variables, including the academic performance of the students) that were predictive of subjective well-being.

The research questions of the study were as follows:

1. Are there any differences in the domains of subjective well-being of the students according to their gender, type of school, and academic performance?

2. As dependent variables, are the domains of subjective well-being associated with the socio-demographic variables, inclusive of academic performance, of students of medicine, dentistry, and other health sciences?

2. Materials and Methods

2.1. Study Design

A cross-sectional study was carried out on health professions students in 2018/2019. The respondents were chosen using a convenience sampling method. This is a type of non-probability sampling method where participants are selected because of their convenience, ease of accessibility, and nearness to the researcher [3,12]. The criteria required for convenience sampling included that the participants were willing to respond and were registered as students of the Faculty of Medical Sciences. The students were met at their respective schools before and after classes with the lecturer's permission and were asked to complete the questionnaire, or the questionnaires were given to the class representative to be returned to the investigator after completion. This study was approved by the Campus Research Ethics Committee of the University of the West Indies (Reference No. CEC783/11/18).

2.2. Participants

The participants were 535 undergraduate students currently enrolled at the Faculty of Medical Sciences in the five schools, i.e., Medicine, Dentistry, Veterinary Medicine, Pharmacy, and Nursing, as well as in the Optometry Unit. We distributed 650 questionnaires, out of which 535 completely filled questionnaires were returned, with an acceptance rate of 82%. Each participant's questionnaire was assigned a number code to ensure the anonymity of participants and the confidentiality of the obtained information. Table 1 displays the socio-demographics of the 535 students sampled at the Faculty of Medical Sciences. The largest age group was that of 18–21 (52%), while the smallest age group was 26–29 (8.8%). The majority of students (71.6%) were female, while 28.4% were male. With respect to the marital status of the students, the majority identified as single (81.9%), and only 3.5% were married. The schools of which the sample was comprised were the schools of medicine (170, 31.8%), dentistry (98, 18.3%), veterinary medicine (50, 9.3%), pharmacy (70, 13.1%), nursing (84, 15.7%), and optometry (63, 11.8%). The nationality of students was mainly Trinbagonian (92%). The ethnicity of the sample included 50.2% East Indian, 22.1% African, and 27.7% who identified as mixed or other ethnicity. Additionally, regarding the GPA of the sample, the majority, 43.6%, belonged to the 3–3.59 range, followed by the 3.6–3.99 (29.4%), 2.0–2.99 (18.9%), and, finally, 4.0 and above (8.2%). Lastly, regarding the family types to which the students belonged, the majority belonged to the nuclear family type (63.6%), while the least identified was the extended type (5%).

2.3. Instrument

The dimensions of the questionnaire included socio-demographic information: age, gender, marital status, school of study, nationality, ethnicity, and type of family. The tool also included the cumulative grade point average (CGPA), which is an indicator of academic performance. Subjective well-being was measured on the Satisfaction with Life Scale (SWLS) [13] along with the Scale of Positive and Negative Experience (SPANE) and the Flourishing Scale (FS) [14]. The SWLS is used worldwide to measure the cognitive judgments of satisfaction with one's life. The five items of the SWLS were answered using a seven-point Likert scale, where 1 = strongly disagree and 7 = strongly agree [15]. While interpreting the scores, a higher score indicates a higher level of satisfaction with life. The SPANE is a self-report scale composed of 12 adjectives that include six (6) items to assess positive feelings and six items to determine the negative feelings of an individual. The scores for both negative and positive feelings can vary from 6 (lowest possible score) to 30 (highest possible score). However, the negative feelings score is subtracted from the score of positive feelings to get a balanced score. A higher total balance score means the respondent is more inclined towards positive feelings [14].

The FS is used to assess social–psychological characteristics to strengthen the existing evaluations of subjective well-being, and is determined by a final psychological score. The FS measures the respondent’s self-perceived success in areas such as relationships, self-esteem, purpose, and optimism. The FS comprises eight (8) brief items, whose responses range from 1 = strongly disagree to 7 = strongly agree. This scale has a possible range of scores ranging from 8 (lowest possible) to 56 (highest possible). A higher total score means the respondent has many psychological resources and strengths [14]. When calculated, the SWLS, SPANE, and FS give an accurate indication of the subjective well-being of an individual. In the present study, Cronbach’s alpha coefficient for SWLS, SPANE, and FS was higher than 0.81.

Table 1. Socio-demographic characteristics of the participants.

Participants	Characteristics	N	%
Age	18–21	278	52
	22–25	193	36.1
	26–29	47	8.8
	30 and above	17	3.2
Gender	Male	152	28.4
	Female	383	71.6
Marital status	Single	438	81.9
	Married	19	3.5
	Other	78	14.6
School	Medicine	170	31.8
	Dentistry	98	18.3
	Vet. Med.	50	9.3
	Pharmacy	70	13.1
	Nursing	84	15.7
	Optometry	63	11.8
Nationality	Trinbagonian	492	92
	Non-national	43	08
Ethnicity	East Indian	269	50.2
	African	118	22.1
	Mixed and others	148	27.7
GPA	4 and above	44	8.2
	3.6–3.99	157	29.4
	3–3.59	233	43.6
	2.0–2.99	101	18.9
Family type	Nuclear	340	63.6
	Extended	65	12.1
	Single parent	103	19.3
	Others	27	5
Total		535	100

2.4. Statistical Analysis

The data were analyzed using Statistical Package for Social Sciences (SPSS Inc., Chicago, IL, USA) version 24. First, the frequency distribution of the socio-demographics was determined. Shapiro–Wilk’s test ($p > 0.05$) showed that the scores of the domains of subjective well-being were approximately normally distributed for the studied independent variables with a skewness and kurtosis at a close proximity to zero [16]. So, we performed *t*-tests to compare males and females according to three domains of subjective well-being. Additionally, one-way analysis of variance (ANOVA) followed by the Bonferroni post hoc test were performed to make comparisons of the domains of subjective well-being according to the students studying in different schools and their academic performance. A *p*-value of

<0.05 was considered significant for both the *t*-test and the ANOVA. Furthermore, we used stepwise regression considering the domains of subjective well-being as dependent variables, as well as with the independent variables of age, marital status, nationality, ethnicity, GPA, and type of family, to examine the adjusted relationship between subjective well-being and independent variables. The variables for stepwise regression were selected after finding the correlation coefficients significant ($p < 0.05$) using Pearson product-moment bivariate analysis.

3. Results

3.1. Comparisons of the Domains of Subjective Well-Being

The various domains of interest that may have an impact on subjective well-being were analyzed and are discussed below.

3.2. Gender

To determine if significant differences in three domains of subjective well-being (SWLS, SPANE, and FS) existed according to gender, school, and academic performance, *t*-tests and one-way ANOVA were performed (Table 2). With respect to the three domains of subjective well-being, no statistically significant differences between male and female students were recorded.

Table 2. Comparative analysis of students in the domains of subjective well-being.

Variables	SWLS M \pm SD	<i>p</i> -Value	SPANE M \pm SD	<i>p</i> -Value	FS M \pm SD	<i>p</i> -Value
Gender						
Male	22.16 \pm 6.74	0.503	2.93 \pm 7.22	0.097	42.78 \pm 8.56	0.811
Female	22.59 \pm 6.72		4.13 \pm 8.03		42.58 \pm 8.65	
School						
Medicine	22.11 \pm 7.00	0.000 *	3.73 \pm 8.17	0.065	42.52 \pm 8.78	0.003 *
Dental	23.12 \pm 6.24		4.43 \pm 7.88		43.70 \pm 7.82	
Vet Med	19.14 \pm 7.52		0.68 \pm 8.07		39.24 \pm 10.79	
Pharmacy	24.67 \pm 5.29		3.26 \pm 6.13		44.16 \pm 7.97	
Nursing	23.11 \pm 6.06		3.37 \pm 5.77		44.36 \pm 7.32	
Optometry	20.19 \pm 7.09		2.19 \pm 7.36		40.72 \pm 8.58	
GPA						
4 and above	24.39 \pm 6.64	0.016 *	7.45 \pm 8.45	0.001 *	44.66 \pm 7.55	0.012 *
3.6–3.99	21.99 \pm 6.69		2.43 \pm 7.67		42.20 \pm 9.13	
3.0–3.59	22.72 \pm 6.82		3.45 \pm 6.72		43.27 \pm 7.82	
2.0–2.99	20.82 \pm 6.39		2.35 \pm 7.80		40.97 \pm 9.41	

*—significant at the 0.05 level of significance. SWLS = Satisfaction with Life Scale; SPANE = Scale of Positive and Negative Experience; FS = Flourishing Scale; GPA = grade point average.

3.3. Type of School

Table 2 depicts differences in SWLS, SPANE, and FS among students studying in different schools/units of the Faculty of Medical Sciences. The means and standard deviations of SWLS were 22.11 \pm 7.00 for medical students, 23.12 \pm 6.24 for dental, 19.14 \pm 7.52 for veterinary medicine, 24.67 \pm 5.29 for pharmacy, 23.11 \pm 6.06 for nursing, and 20.19 \pm 7.09 for optometry students. Significant differences were reported among students studying in different schools ($p < 0.05$) in the SWLS domain. In a further Bonferroni post hoc test, significant differences were recorded in SWLS between dental and veterinary medicine, veterinary medicine and pharmacy, veterinary medicine and nursing, and pharmacy and optometry ($p < 0.05$). In addition, students from different schools did not extrapolate any differences in the domain of the SPANE ($p = 0.065$).

In the FS domain, significant differences were found among students studying in different schools/units. The means and standard deviations of FS were 42.52 \pm 8.78 for the school of medicine,

39.24 ± 10.79 for dental, 44.16 ± 7.97 for veterinary medicine, 44.16 ± 7.97 for pharmacy, 44.36 ± 7.32 for nursing, and 40.72 ± 8.58 for optometry. Additionally, we used the Bonferroni post hoc test and found significant differences in the FS between dental and veterinary medicine, veterinary medicine and pharmacy, and veterinary medicine and nursing ($p < 0.05$).

3.4. Grade Point Average

The comparison of mean SWLS scores by GPA in Figure 1 reveals that students with GPAs of four (4) and above had the highest score, followed by GPAs of 3–3.59, 3.6–3.99, and 2–2.99. The analysis revealed significant differences in SWLS scores of students that obtained different GPAs ($p = 0.016$). In the Bonferroni post hoc test, we found a significant difference in SWLS scores between the GPAs of 4 and above and 2–2.99.

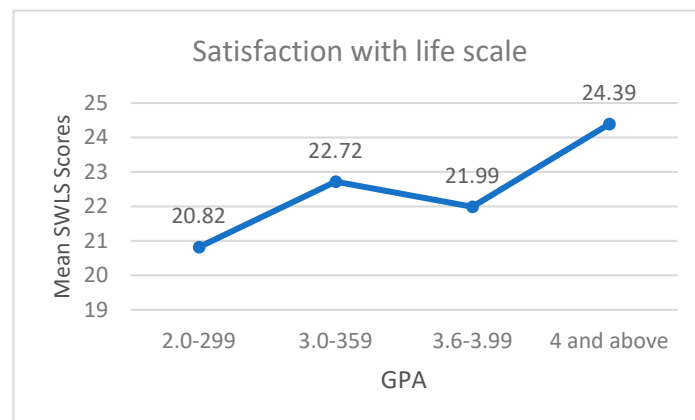


Figure 1. Mean SWLS scores according to grade point average.

A statistically significant difference ($p = 0.016$) was found among students obtaining different GPAs and the SPANE (Table 2). Figure 2 revealed that the mean SPANE score was highest among the students who had a GPA of 4 and above. In a further post hoc test, we found a significant difference between GPAs of 4 and above and 3.60–3.99, 4 and above and 3–3.59, and 4 and above and 2–2.99 in the mean scores of SPANE domain. Similarly, a significant difference was found between GPAs in the FS domain ($p = 0.012$). The mean FS scores were highest among students who had GPAs of 4 and above (Figure 3). In a further post hoc test, we found a significant difference between the students' GPAs of 4 and above and of 2–2.99 in FS mean scores.

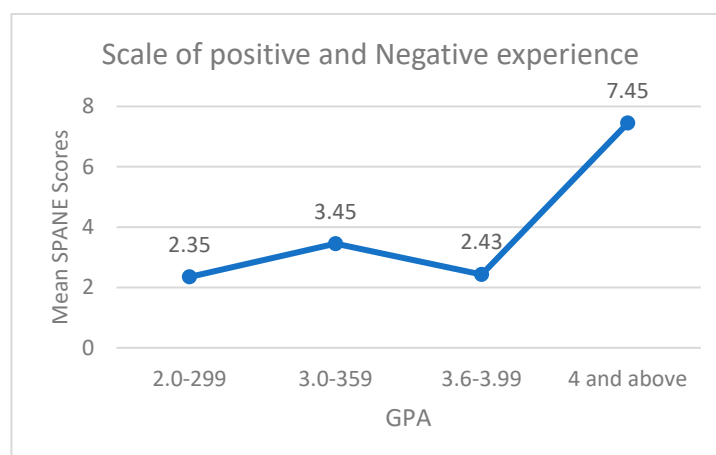


Figure 2. Mean SPANE scores according to grade point average.

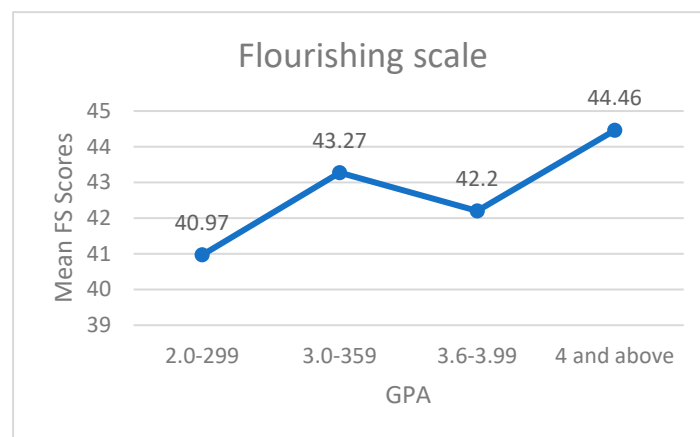


Figure 3. Mean FS scores according to grade point average.

3.5. Step-Wise Regression Considering the Domains of Subjective Well-Being with the Independent Variables

Stepwise regression was performed considering the domains of subjective well-being as dependent variables and with the independent variables of age, marital status, nationality, ethnicity, GPA, and type of family. The variables for stepwise regression were selected after finding correlation coefficients significant ($p < 0.05$) using Pearson product-moment bivariate analysis (Table 3). The variables were shown to significantly predict the SWLS, SPANE, and FS domains, which are shown in Table 4. Five independent variables—marital status ($\beta = 0.164$, $p < 0.001$), family type ($\beta = -0.107$, $p < 0.05$), nationality ($\beta = 0.111$, $p < 0.05$), age ($\beta = -0.108$, $p < 0.05$), and ethnicity ($\beta = -0.091$, $p < 0.05$)—were shown to be significant predictors of the SWLS domain. In regard to the relationship of the SPANE with the independent variables, ethnicity ($\beta = -0.125$, $p < 0.05$), GPA ($\beta = -0.098$, $p < 0.05$), and nationality ($\beta = 0.087$, $p < 0.05$) were considered to be correlated with SPANE. For the FS domain, only one variable, i.e., nationality ($\beta = 0.126$, $p < 0.05$), was shown to be a significant predictor.

Table 3. Correlations for variables included in the regression analysis.

Variable	1	2	3	4	5	6	7	8	9
Age	1.00								
Marital Status	0.05	1.00							
Nationality	0.15 **	−0.04	1.00						
Ethnicity	−0.03	0.11 *	−0.06	1.00					
GPA	0.00	−0.01	−0.05	−0.06	1.00				
Family Type	0.03	−0.04	0.07	−0.12 **	0.02	1.00			
SWLS	−0.08	0.15 **	0.09 *	−0.06	−0.09 *	−0.10 *	1.00		
SPANE	0.04	−0.01	0.10 *	−0.13 **	−0.10 *	−0.01	0.54 **	1.00	
FS	−0.01	0.06	0.13 **	−0.06	−0.09 *	−0.01	0.64 **	0.68 **	1.00

**—significant at the 0.01 level, *—significant at the 0.05 level. SWLS = Satisfaction with Life Scale; SPANE = Scale of Positive and Negative Experience; FS = Flourishing Scale; GPA = grade point average.

Table 4. Summary of the stepwise regression analysis for variables predicting the SWLS, SPANE, and FS.

Dependent Variable	Independent Variable	Unstandardized Coefficient		Standardized Coefficient	<i>t</i>	<i>p</i> -Value	95% Confidence Interval	
		B	SE	Beta			Lower Bound	Upper Bound
SWLS	Marital Status	1.462	0.379	0.164	3.861	0.000 **	0.718	2.206
	Family type	−0.757	0.299	−0.107	2.532	0.012 *	−1.344	−0.170
	Nationality	2.752	1.056	0.111	2.605	0.009 *	0.677	4.827
	Age	−0.939	0.370	−0.108	2.536	0.015 *	−1.666	−0.211
	Ethnicity	−0.869	0.408	−0.091	2.129	0.034 *	−1.672	−0.067
SPANE	Ethnicity	−1.329	0.455	−0.125	2.923	0.004 *	−2.222	−0.436
	GPA	−0.853	0.372	−0.098	−2.296	0.022 *	−1.583	−0.123
	Nationality	2.384	1.175	0.087	2.209	0.043 *	0.075	4.692
FS	Nationality	3.979	1.349	0.126	2.950	0.003 *	1.329	6.628

**—significant at the 0.001 level, *—significant at the 0.05 level. SWLS = Satisfaction with Life Scale; SPANE = Scale of Positive and Negative Experience; FS = Flourishing Scale, GPA = grade point average.

4. Discussion

The present study aimed to find out if there were any differences in the domains of subjective well-being of the students according to their gender, type of school, and academic performance. Furthermore, it aimed to see if three domains of subjective well-being (SWLS, SPANE, and FS) were associated with socio-demographic variables, inclusive of academic performance, of students of medicine, dentistry, and other health sciences.

4.1. Subjective Well-Being and Gender

Concerning gender and subjective well-being in the present study, no statistically significant results were observed between males and females in the SWLS, SPANE, and FS scales. There was also little difference in the mean scores of subjective well-being in all three scales. This is in concordance with a Georgian study [9], which also showed no significant differences between the genders in the SWLS scale. However, our results are contrasting with those of another study by Proteasea et al. [17], which has reported variation in positive well-being in male and female dental students, whereas females showed lower positive well-being levels during the semester and assessment periods. Similarly, in a study, Coninck et al. found that gender was significantly associated with subjective well-being, and female students reported lower subjective well-being than male students [18]. Furthermore, in a study of China, it was shown that the difference in life satisfaction was marginally significant with regard to gender, with females more satisfied with life than their male counterparts (22.88 vs. 22.14, $p = 0.052$) [19]. In addition, Preoteasa et al. also found gender differences from the results of their study. At the baseline, both male and female students showed similar positive well-being levels, but female students showed a greater decrease in the well-being level during the semester, whereas male students had a more stable well-being level. Furthermore, in a study by Aboalshamat et al. on psychological well-being status among medical and dental students in Saudi Arabia, they found that female medical students had higher psychological distress than males, whereas male dental students had higher distress than female dental students [20]. Another study by Samaranayake et al. in New Zealand assessed the satisfaction with life among 255 medical students, 208 health science students, 36 nursing students, and 95 architecture students at the University of Auckland using the SWLS, Patient Health Questionnaire (PHQ), and Generalized Anxiety Disorder Questionnaire (GAD); they found that female students had higher rates of depression and anxiety compared to males. These findings were supported by a statistically significant moderate correlation between SWLS scores and PHQ scores ($r = -0.37$ ($p < 0.001$)) as well as SWLS scores and GAD scores ($r = -0.23$ ($p < 0.001$)) [21]. Furthermore, another study from India found that male students were happier than female students [22].

4.2. Subjective Well-Being and Type of School

While comparing the differences in the domains of subjective well-being based on the students studying in different schools/units of the Faculty of Medical Sciences, significant differences were recorded with respect to the SWLS ($p < 0.05$) and FS ($p < 0.05$) domains. In a further post hoc test, a significant difference was recorded in the SWLS between dental and veterinary medicine, veterinary medicine and pharmacy, veterinary medicine and nursing, and pharmacy and optometry ($p < 0.05$). Additionally, we found a significant difference in FS between dental and veterinary medicine, veterinary medicine and pharmacy, and veterinary medicine and nursing ($p < 0.05$). However, no significant difference was reported between medical and nursing students in the domains of subjective well-being. Our findings correspond with the study conducted by Zhao et al. [23], which also showed no significant difference between medical and nursing students in subjective well-being.

In a study by Buker et al. [24], it was noted that difference in subjective well-being was small to medium across the range of academic achievement ($r = 0.164$). Not many articles have stated using the Flourishing Scale, but have used equivalents with similar questions asked, such as a study in Barbados [25], which reported that students were more satisfied with relationships, self-image, and physical appearance, which can influence one's life satisfaction and, thus, one's subjective well-being. A review from Korea of thirty-seven studies on SWB in medical education found relatively high levels of distress in medical students, which were related to academic worries. Although medical students were under a great deal of distress, they regarded help-seeking behavior for their distress as weakness or something negative [26]. A study done by Useche et al. among 150 university students (seven different fields of careers) of Colombian higher education institutions to examine the psychometric properties of the SWLS. The results showed relatively high satisfaction with life, and although no gender differences were found, a set of differences according to career was established. Regarding psychometric properties, a good factorial solution and a set of favorable internal consistency coefficients were found. Satisfaction with life is an essential variable to be considered as part of the approach to well-being and quality of life of people [27]. Another study from Pakistan by Naseem et al. assessed levels of suicidal ideation, depression, anxiety, stress, and life satisfaction among 300 university students using the SWLS and other tools; they found that social sciences and engineering students had significantly higher levels of depression, anxiety, and stress than medical students [28]. A New Zealand study that assessed the satisfaction with life and identified the associations with depression and anxiety disorders among 778 students found that the rates of depression and anxiety among medical students were 16.9% (95% Confidence Interval (CI) 12.2–21.5) and 13.7% (95% CI 9.5–18.0), respectively, and medical students had, on average, higher satisfaction with life compared to other students [21].

4.3. Subjective Well-Being and Academic Performance

A statistically significant difference was found among students obtaining different GPAs and SPANE scores. The mean SPANE score was highest among the students who had a GPA of 4 and above. In a further post hoc test, we found significant differences between GPAs of 4 and above and 3.60–3.99, 4 and above and 3–3.59, and 4 and above and 2–2.99 in the mean scores of the SPANE domain. These findings are in contrast with those of the study of Alkhalaf et al. [29], who used a tool similar to the SPANE-B known as the Positive and Negative Affect Scale (PANAS), where no difference in well-being was found with students with different academic performance.

Comparison of mean SWLS scores by GPA revealed that students with GPAs of four (4) and above had the highest scores, followed by GPAs of 3–3.59, 3.6–3.99, and 2–2.99. The analysis revealed significant differences in SWLS scores of students obtaining different GPAs. In the post hoc test, we found a significant difference in SWLS scores between the GPAs of 4 and above and 2–2.99. The findings of our study are consistent with those of the study of Turashvili et al., who found that the students who have a medium or high level of academic performance have high indexes of well-being, purpose in life, and personal growth [9]. It was reported in another study that students with better

academic performance in the semester evaluation period (in terms of higher GPA, ability to pass all examinations, and attendance to all final examinations) tend to register higher positive well-being levels at the beginning of the semester [17].

Similarly, a significant difference was found between GPAs in the FS domain. The mean FS scores were highest among students who had a GPA of 4 and above. In a further post hoc test, we found a significant difference between the students' GPAs of 4 and above and 2–2.99 in FS mean scores. These findings are similar to those of the study of Ayyash-Abdo et al. [30], who found that, among Lebanese University students, higher satisfaction was a predictor of higher academic performance, contrary to the results of Buker et al. [24], who found that level of achievement did not reflect on the level of subjective well-being. A study from China among five hundred and twelve students from two universities examined if subjective well-being is linked to their perception of learning environments being grounded in constructivism. It was found that students' perceptions of a constructivist learning environment were significantly linked to their life satisfaction and positive and negative affect. More specifically, the environmental dimensions of clear goals and coherence of curricula, student–student cooperation, and learning facilities were positively associated with life satisfaction, and clear goals, coherence of curricula, and learning facilities were also positively related to positive effect [31].

4.4. Factors Associated with Subjective Well-Being

In the present study, marital status, family type, nationality, age, and ethnicity were shown to be significant predictors of the SWLS domain ($p < 0.05$). In regard to the relationship of SPANE with the independent variables, ethnicity, GPA, and nationality were considered to be correlated with SPANE ($p < 0.05$). For the FS domain, only one variable, i.e., nationality, was shown to be a significant predictor ($p < 0.05$). In conjunction with age and SWLS, the result is consistent with the study conducted by Shapiro and Keyes. Furthermore, in their study, they found that married persons do have a significant social well-being advantage over non-married cohabiters [32]. In another study, academic degree had remained as one of the main variables that was significantly associated with social well-being. However, in the same study, no significant relationships between social well-being and age or marital status along with gender and employment status of students were reported [33]. Additionally, high and average performers were seen to have similar mean scores of 45.50 and 45.05, respectively, in the Flourishing Scale compared to the below-average performers, indicating a positive correlation between the two components. Self-attainment of these components is necessary for medical students, as they will demand spirituality, motivation, positive attitudes, feelings, and self-esteem. As such, medical students will be able to cope with working hours in their future medical careers [34]. In a study of China, significant differences in the life satisfaction levels were shown among medical students of different age groups. Furthermore, in the same study, students who were the only child in the family, who were from cities and towns, and whose parents had higher educational levels enjoyed higher levels of life satisfaction [19]. A study from Pakistan conducted among 300 university students also concluded that academic performance is significantly negatively related to depression and significantly positively related to subjective happiness and life satisfaction [8]. A study by Moghadam et al. from Iran found in their study among medical students that gender and GPA were also associated with higher levels of happiness. Higher GPA was associated with higher levels of happiness, and this issue was not addressed by other studies. In the case of people with lower GPAs, there has been more dissatisfaction and expectations; however, students with higher GPAs have more stress to maintain the current situation and are competitive with others. In addition, avoidant attachment style was more common among single people than married people in Iran. Avoidant attachment could be a barrier to marriage. Age and happiness were negatively correlated; however, this relationship was not significant [35].

5. Conclusions

A greater subjective well-being correlates with higher academic performance, indicating that subjective well-being is an important aspect of a student's academic life. Among the domains of subjective well-being, only the Scale of Positive and Negative Experience showed a significant association with academic performance. Universities need to make provisions by paying more attention to those who showed poor academic performance during and at the end of each semester to address the needs and mental health issues of students. With respect to the Satisfaction with Life Scale and Flourishing Scale, significant differences were reported among students based on the type of school and academic performance ($p < 0.05$); while comparing the differences in the Scale of Positive and Negative Experience, a significant difference was recorded based on the academic performance.

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