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Comparative Study

Comparative Study of Undergraduate Students Studying in Various Disciplines

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ABSTRACT

The present study compares the personal values of students of undergraduate courses under three primary discipline groups; arts and humanities, science, and commerce. The difference in gender among the undergraduate courses in the discipline groups is also studied, along with the interaction of gender and course discipline. The population consisted of 120 undergraduate students enrolled in the above disciplines in universities across India aged 18-25. PVQ questionnaire by Sherry and Varma is used. The results found that there is significant difference of personal values between all the discipline groups, i.e., Science, Commerce and Arts and humanities. There was no significant difference in the personal values of religion value, aesthetic value, family prestige value, democratic value between genders and course groups. However, there is significant difference of health value and knowledge value between science students and arts and humanities; they differ in health value among both arts and humanities and commerce. Arts and humanities discipline differ in social value from both science and commerce, and differed significantly from commerce in hedonistic value. Commerce students have significant difference of economic value from both science and arts and humanities students but differ significantly in power value with arts and humanities only. There was an interaction of gender and course in the social value only, with girls of science discipline differing significantly from boys in the same discipline significantly, however, no significant difference of gender was found among any other disciplines or values.

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Personal values are concepts that occupy an integral position and social sciences and humanities. These are defined as "broad, trans situational, desirable goals that serve as guiding principles in people's lives" (Sagiv et. al, 1987). Schwartz (1992) further emphasized that values are cognitive representations of three universal needs of human beings: (a) Need for fulfilment of biological needs necessitated by environmental demands, (b) Need for social interaction with fellow humans for fulfilment of social needs and coordination for survival, (c) Need for upholding the demands of the social institution to which individual belongs to.

In psychology, values are treated as static structures; as a property or attribute of persons that is liable to being measured (Rohan, 2000). In this view, they are viewed as a "standard of preference" (Williams, 1968), i.e., a parameter to evaluate how good or just something subjectively is to an individual's personal set of values. Values are instrumental at determining the worthiness to an ideal. Values do not limit the parameters we consider good or just, however; instead, they help us to structure our experiences based on the values we hold.

Some personal values can be more important in some careers than others, and on this basis, it is possible to typify and categorize them based on the personal values each finds most valuable to them (Anana & Nique, 2010). Each profession shows particularity in terms of the personal values that professionals in those fields depreciate or value, or by both. Asayesh et al. (2020) in their study of personal values among female and male students in Iran found that no significant difference existed between the genders in all values except for family value; in comparison with the findings of previous research done in this area itself, they deduced that this difference had undergone a change as time has progressed.

Personal values are important to be studied among the student population, especially students of higher education, as they encompass what components in society and around them matter to them and what holds importance in their life, as well as allow them motivation to continue to pursue their studies (Jardim et. al, 2017). In their review of literature done on personal values of students in higher education, i.e., college going students, Jardim et. al. (2017) drew some interesting results. Some values of accomplishment and self-realization are positively related to future employment. They found that there exists similarity of values, and more prevalence of some values between genders, religious groups, age, class difference, type of departments etc. These results demonstrate that through schooling it is possible to construct and develop desirable human values in students.

Tunç et al, (2018) studied personal values of students in different departments; health, science and letter, and education through descriptive cross-sectional survey method. They found that significant difference of Schwartz's personal values exist between science and health and education departments. Moreover, males were found to have significantly higher scores on achievement values than females, and universalism hedonism, benevolence and conformity were higher in females.

Gender differences have been shown to exist in personal values orientations. (Charles and Parikh, 2017, Kovach, 2017). Girls value economic value more whereas the boys choose power and health value. Female students also have much more of a humanistic orientation of

personal values. Parks et. al (2021) revealed in their study on business and non-business students that a significant difference of values does exist between business and non-business students.

METHODS

The independent variables of the study were defined as the gender and discipline of the undergraduate students. The dependent variables were defined as the 10 personal values measured by the Personal Values Questionnaire by Sherry and Verma (1998). The values are: *religious value, social value, economic value, health value, aesthetic value, power value, family prestige value, democratic value, knowledge value and hedonistic value.* Demographic values such as age, educational status, were controlled.

Hypothesis

The study aims to find if a similarity of personal values exists between the course discipline groups, and whether there is an influence of gender in that difference. In the given previous literature, it is seen that undergraduate college students tend to have different value inclinations, and certain course groups may be grouped together based on the values common between them. Consecutively, the groups studied here are to reveal whether a true significant difference exists between the groups that have already been parsed.

Thus, the following hypotheses are presented:

There is no significant difference of personal values between the disciplines; i.e.,

- Personal values of Arts and Humanities discipline would not differ significantly from those in commerce discipline.
- Personal values of Commerce discipline would not differ significantly from those of science discipline.
- Personal values of science discipline would not differ significantly from those of Arts and Humanities.
- There would be no significant gender difference between the personal values of all disciplines.
- There would be no significant interaction of gender and course both in value preference of students of all disciplines.

Participants

The study compared the personal values of 120 participants of which 60 were male and 60 were female, with each occupying 50% each of the total data. Undergraduate students of three different course discipline groups: Science, Arts and Humanities, Commerce. Among the disciplines, from the science discipline, data of B.sc and B.Tech courses; from the Arts and Humanities, data of B.A. English, B.A. Psychology and B.A. Sociology courses; from commerce, B.B.A and B.Com courses of various institutions were taken into consideration. Each discipline course occupied 33.3% of the total 120 sample.

Materials

Personal Values Questionnaire (PVQ, Sherry & Verma, 1998)

The personal values questionnaire by G.P. Sherry and R.P. Verma was first created in 1998 and further revised in 2008. The present version used in this study utilizes the revised version of the PVQ. The PVQ is a self-report measure that can be group or individually administered. It consists of 40 questions with three responses each carrying its own different

personal value, bringing the total number of items in the questionnaire to 120. The questionnaire divides its questions along 10 personal values.

Test-retest reliability was found to be fairly high after a time gap of 3 months. Religious and family prestige values have the reliability coefficients of .82 and .82 respectively. The lowest reliability was found for power value = .53. All other values' reliability coefficients fall near .60. Content validity was found with the rank order coefficient of correlation was calculated, which was found to be r= 0.64.

Procedure

The present study utilizes primary data analysis methods, performed on data gathered from a sample of 120 undergraduate students from universities in India through the online medium. Participants were recruited through social media. The study is done in a comparative quantitative research design comparing the personal values of the different discipline groups as described above. Exclusion factors for the study was that the participants had to only be pursuing the current undergraduate degree and had no other undergraduate or post graduate degrees besides the one currently being pursued.

Participants ranged in age from 18-25. 50% of participants were female and 50% were male, with each discipline occupying 33.3% each of the data collected, i.e., science (N=40), commerce (N=40), Arts and humanities (N=40).

The data was collected via an online questionnaire/survey service (google forms). Participants were first instructed to read and affirm their informed consent. The survey questionnaire, as relevant to this study, included the instrument of Personal Values Questionnaire developed by Sherry and Verma (1998).

All data was saved by the online data collection program, entered into SPSS, and analyzed further. The online program and the accompanying database could only be accessed by the author. All data analysis was carried out using SPSS version 16. Data analysis was done by putting the raw data in SPSS16 and conducting two-way factorial ANOVA test to compare the personal values of the course discipline groups with the genders.

RESULTS

Each group of discipline comprises of 33.3% the total data, with the genders occupying 50% each of the data collected. The frequency descriptive data of these variables along the dependent variable of each value are described in the given tables 4.1-4.2.

Table 4.1: Descriptive statistics course, personal values factors

	Course	***M***	**N**	***SD***	**% of Total N**
factor A	A-H	8.4000E0	40	2.77165	33.3%
	commerce	9.6250E0	40	3.43950	33.3%
	Science	8.1250E0	40	3.68077	33.3%
	Total	8.7167E0	120	3.35613	100.0%
factor B	A-H	1.3950E1	40	3.16997	33.3%
	commerce	1.0525E1	40	2.01262	33.3%
	Science	1.1375E1	40	2.79824	33.3%

	Total	1.1950E1	120	3.05372	100.0%
factor C	A-H	1.8175E1	40	3.19364	33.3%
	commerce	1.5950E1	40	3.80250	33.3%
	Science	1.7300E1	40	2.57403	33.3%
	Total	1.7142E1	120	3.33128	100.0%
Factor D	A-H	1.3850E1	40	3.41603	33.3%
	commerce	1.1725E1	40	3.07169	33.3%
	Science	1.2925E1	40	3.29247	33.3%
	Total	1.2833E1	120	3.35149	100.0%
Factor E	A-H	1.1500E1	40	3.84974	33.3%
	commerce	1.6550E1	40	2.91723	33.3%
	Science	1.0975E1	40	3.26981	33.3%
	Total	1.3008E1	120	4.18580	100.0%
Factor F	A-H	1.2125E1	40	3.01439	33.3%
	commerce	1.2600E1	40	2.98543	33.3%
	Science	1.4125E1	40	3.39825	33.3%
	Total	1.2950E1	120	3.22764	100.0%
Factor G	A-H	1.4200E1	40	2.85729	33.3%
	commerce	1.1875E1	40	2.81195	33.3%
	Science	1.2750E1	40	3.11119	33.3%
	Total	1.2942E1	120	3.06044	100.0%
factor H	A-H	7.7750E0	40	2.09379	33.3%
	commerce	1.0800E1	40	3.45075	33.3%
	Science	9.5250E0	40	2.80098	33.3%
	Total	9.3667E0	120	3.07588	100.0%
factor I	A-H	1.1150E1	40	2.93126	33.3%
	commerce	1.0150E1	40	2.94871	33.3%
	Science	1.0700E1	40	3.29880	33.3%
	Total	1.0667E1	120	3.06603	100.0%
factor j	A-H	8.8750E0	40	2.11451	33.3%
	commerce	8.8250E0	40	2.28583	33.3%
	Science	1.1350E1	40	2.48637	33.3%
	Total	9.6833E0	120	2.56997	100.0%

Table 4.2: Descriptive Statistics gender, personal value factors

Gender		*M*	*N*	*SD*	% of Total N
Female	factor A	8.4000E0	60	3.45037	50.0%
	factor B	1.2300E1	60	2.58614	50.0%
	factor C	1.7467E1	60	3.16478	50.0%
	Factor D	1.3133E1	60	3.55331	50.0%
	Factor E	1.3467E1	60	4.39363	50.0%
	Factor F	1.3133E1	60	3.18613	50.0%
	Factor G	1.2400E1	60	2.81762	50.0%
	factor H	9.0333E0	60	3.10258	50.0%
	factor I	1.0817E1	60	3.14342	50.0%
	factor j	1.0017E1	60	2.58740	50.0%
Male	factor A	9.0333E0	60	3.25715	50.0%
	factor B	1.1600E1	60	3.44546	50.0%
	factor C	1.6817E1	60	3.48601	50.0%
	Factor D	1.2533E1	60	3.13789	50.0%
	Factor E	1.2550E1	60	3.95065	50.0%
	Factor F	1.2767E1	60	3.28513	50.0%
	Factor G	1.3483E1	60	3.21802	50.0%
	factor H	9.7000E0	60	3.03818	50.0%
	factor I	1.0517E1	60	3.00560	50.0%
	factor j	9.3500E0	60	2.52999	50.0%
Total	factor A	8.7167E0	120	3.35613	100.0%
	factor B	1.1950E1	120	3.05372	100.0%
	factor C	1.7142E1	120	3.33128	100.0%
	Factor D	1.2833E1	120	3.35149	100.0%
	Factor E	1.3008E1	120	4.18580	100.0%
	Factor F	1.2950E1	120	3.22764	100.0%
	Factor G	1.2942E1	120	3.06044	100.0%
	factor H	9.3667E0	120	3.07588	100.0%
	factor I	1.0667E1	120	3.06603	100.0%
	factor j	9.6833E0	120	2.56997	100.0%

The mean age of all the respondents was 20.425 with standard deviation = .98444. The average age of the respondents of Arts and humanities was 20.525, Science = 19.45 and commerce = 20.01.

For further data analysis and comparison of the data with respect to the gender and disciplines, Two-way factorial Anova was performed where the personal value factors were kept as dependent variable and gender and disciplines as independent variables.

Scores along each factor of personal values were subjected to a two way analysis of variance having two genders (female and male) and three course disciplines (Arts and humanities, science and commerce).

Table 4.3: Fixed-Effects ANOVA results using religion value as the criterion

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	9117.633	1	9117.633	8.353E2	.000
Gender	12.033	1	12.033	1.102E0	.296
Course	51.017	2	25.508	2.337E0	.101
Gender X Course	33.017	2	16.508	1.512E0	.225
Error	1244.300	114	10.915		

R Squared = .072 (Adjusted R Squared = .031)

The main effect of gender on religion value (Factor A) yielded an F ratio of F (1, 114) = 1.102, $p > .05$, indicating that there was no significant main effect with females (mean=8.4000, SD=3.45037) and males (mean=9.0333, SD=3.25715).

The main effect of course on religion value yielded an F ratio of F (2, 114) = 2.337, $p > .05$, indicating that there was no significant main effect with Arts and humanities (M=8.4000, SD=2.77165), commerce (M=9.6250, S.D.=3.43950), science (M=8.7167, S.D. = 3.35613). There was no significant interaction between the effects of gender and course disciplines on religion value, F (2,114) = 1.512, p > .05

Table 4.4: Fixed-Effects ANOVA results using social value as the criterion

Source	Sum of Squares	df	Mean Square	F	Sig.
Intercept	17136.300	1	17136.300	2.583E3	.000
Gender	14.700	1	14.700	2.216E0	.139
Course	254.450	2	127.225	1.918E1	.000
Gender X Course	84.350	2	42.175	6.358E0	.002
Error	756.200	114	6.633		

R Squared = .319 (Adjusted R Squared = .289)

The main effect of gender on social value (Factor B) yielded an F ratio of F (1,114) = 2.216, $p > .05$, therefore, there was no significant main effect with females (M=12.3000, S.D. = 2.58614) and males (M=11.6000, S.D. = 3.44546).

The main effect of course on social value yielded an F ratio of F (2,114) = 19.180, $p < .05$, therefore, there was a significant main effect with arts and humanities (M=13.9500, S.D. = 3.16997), commerce (M=10.5250, S.D. = 2.01262) and science (M=11.3750, S.D. = 2.79824).

There was a statistically significant interaction between the effects of gender and course disciplines on social value, F (2,114) = 6.358, $p < .05$. There was a statistically significant interaction between the effects of gender and course disciplines on social value, F (2,114) = 6.358, p < .05. A simple main effects analysis showed that there is a significant difference of

social value scores between males and females in science (p = .05) but no difference between genders or commerce and arts and humanities disciplines.

Tukey's HSD test for multiple comparisons found that social value was significantly different between arts and humanities and commerce discipline (p = .000 < .05); There is a significant difference of social value between arts and humanities and commerce discipline (p = .000 < .05); there is not a significant difference of social value between science and commerce discipline (p = .306 > .05).

Table 4.5: Fixed-Effects ANOVA results using democratic value as the criterion

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	35260.408	1	35260.408	3.524E3	.000
Gender	12.675	1	12.675	1.267E0	.263
Course	100.517	2	50.258	5.023E0	.008
Gender X Course	66.650	2	33.325	3.330E0	.039
Error	1140.7499999999995	114	10.006578947368418		

a. R Squared = .136 (Adjusted R Squared = .098)

The main effect of gender on democratic value (Factor C) yielded an F ratio of F (1, 114) = 1.267, *p* = .263>.05, indicating that there was no significant main effect with females (mean=17.466, SD=3.16478) and males (mean = 16.8167, SD = 3.48601).

The main effect of course on democratic value yielded an F ratio of F (2, 114) = 5.023, *p* = 0.008> .05, indicating that there was no significant main effect with Arts and humanities (M=18.1750, SD = 3.19), commerce (M = 15.95, S.D.=3.43950), science (M = 17.30, S.D. = 3.80). There was no significant interaction between the effects of gender and course disciplines on democratic value, F (2,114) = 3.330, p = 0.39 > .05.

Table 4.6: Fixed-Effects ANOVA results using aesthetic value as the criterion

Source	Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	180.367[a]	5	36.073	3.556E0	.005
Intercept	19763.333	1	19763.333	1.948E3	.000
Gender	10.800	1	10.800	1.065E0	.304
Course	90.817	2	45.408	4.477E0	.013
Gender X Course	78.750	2	39.375	3.882E0	.023
Error	1156.300	114	10.143		

a. R Squared = .135 (Adjusted R Squared = .097)

The main effect of gender on Aesthetic value (Factor D) yielded an F ratio of F (1, 114) = 1.065, *p* = .304> .05, indicating that there was no significant main effect with females (mean = 13.1333, SD = 3.55331) and males (mean = 12.5333, SD = 3.13789).

The main effect of course on Aesthetic value yielded an F ratio of F (2, 114) = 4.477, *p* = .13 > .05, indicating that there was no significant main effect with Arts and humanities (M = 13.8500, SD = 3.41603), commerce (M = 11.7250, S.D. = 3.07169), science (M = 12.9250,

S.D. = 3.29247). There was no significant interaction between the effects of gender and course disciplines on aesthetic value, F (2,114) = 3.882, p = 0.23 > .05.

Table 4.7: Fixed-Effects ANOVA results using economic value as the criterion

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	20306.008	1	20306.008	1.795E3	.000
Gender	25.208	1	25.208	2.228E0	.138
Course	758.117	2	379.058	3.350E1	.000
Gender X Course	11.817	2	5.908	.522	.595
Error	1289.850	114	11.314		

a. R Squared = .381 (Adjusted R Squared = .354)

The main effect of gender on Economic value (Factor E) yielded an F ratio of F (1, 114) = 2.228, *p* = .138> .05, indicating that there was no significant main effect with females (mean = 13.4667, SD = 4.39363) and males (mean = 12.5500, SD = 3.95065).

The main effect of course on Economic value yielded an F ratio of F (2, 114) = 33.502, *p* = .000 > .05, indicating that there was no significant main effect with Arts and humanities (M = 11.5000, S.D. = 3.8497413), commerce (M = 16.5500, S.D. = 2.91723), science (M = 10.9750, S.D. = 3.26981). There was no significant interaction between the effects of gender and course disciplines on economic value, F (2,114) = .522, p = .595 > .05.

Tukey's HSD test for multiple comparisons found that economic value was significantly different between arts and humanities and commerce discipline (p = .000 < .05); There is no significant difference of economic value between arts and humanities and science discipline (p = .765 > .05); there is a significant difference of economic value between science and commerce discipline (p = .000 > .05).

Table 4.8: Fixed-Effects ANOVA results using knowledge value as the criterion

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	20124.300	1	20124.300	2.011E3	.000
Gender	4.033	1	4.033	.403	.527
Course	87.350	2	43.675	4.364E0	.015
Gender X Course	7.317	2	3.658	.366	.695
Error	1141.000	114	10.009		

a. R Squared = .080 (Adjusted R Squared = .039)

The main effect of gender on Knowledge value (Factor F) yielded an F ratio of F (1, 114) = 403, *p* = .527 >.05, indicating that there was no significant main effect with females (mean=13.1333 S.D. = 3.18613) and males (mean = 12.7667, S.D. = 3.28513).

The main effect of course on Knowledge value yielded an F ratio of F (2, 114) = 4.364, *p* = .015 < .05, indicating that there was a significant main effect with Arts and humanities (M = 12.1250, S.D. = 3.01439), commerce (M = 12.6000, S.D. = 2.98543), science (M = 14.1250, S.D. = 3.39825).

There was no significant interaction between the effects of gender and course disciplines on knowledge value, F (2,114) = .366, *p* = .695 > .05.

Tukey's HSD test for multiple comparisons found that knowledge value was not significantly different between arts and humanities and commerce discipline (p = .781> .05); There was a significant difference of knowledge value between arts and humanities and science discipline (p = .015 < .05); there was no significant difference of knowledge value between science and commerce discipline (p = .083 > .05).

Table 4.9: Fixed-Effects ANOVA results using hedonistic value as the criterion

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	20098.408	1	20098.408	2.412E3	.000
Gender	35.208	1	35.208	4.226E0	.042
Course	110.317	2	55.158	6.621E0	.002
Gender X Course	19.317	2	9.658	1.159E0	.317
Error	949.750	114	8.331		

a. R Squared = .148 (Adjusted R Squared = .111)

The main effect of gender on Hedonistic value (Factor G) yielded an F ratio of F (1, 114) = 4.226, *p* = 0.42 >.05, indicating that there was no significant main effect with females (mean = 12.4000, S.D. = 2.81762) and males (mean = 13.4833, S.D. = 3.21802).

The main effect of course on Hedonistic value yielded an F ratio of F (2, 114) = 6.621, *p* =. 002 < .05, indicating that there was a significant main effect with Arts and humanities (M = 14.2000, S.D. = 2.85729), commerce (M = 11.8750, S.D. = 2.81195), science (M = 12.7500, S.D. = 3.11119). There was no significant interaction between the effects of gender and course disciplines on hedonistic value, F (2,114) = 1.159, *p* = .317 > .05.

Tukey's HSD test for multiple comparisons found that hedonistic value was significantly different between arts and humanities and commerce discipline (p = .001 < .05); There is no significant difference of hedonistic value between arts and humanities and science discipline (p = .083 > .05); there is no significant difference of hedonistic value between science and commerce discipline (p = .368 > .05).

Table: 4.10: Fixed-Effects ANOVA results using power value as the criterion

Source	Sum of Squares	df	Mean Square	F	Sig.
Intercept	10528.133	1	10528.133	1.413E3	.000
Gender	13.333	1	13.333	1.789E0	.184
Course	184.517	2	92.258	1.238E1	.000
Gender X Course	78.317	2	39.158	5.254E0	.007
Error	849.700	114	7.454		

a. R Squared = .245 (Adjusted R Squared = .212)

The main effect of gender on Power value (Factor H) yielded an F ratio of F (1, 114) = 1.789, *p* = .184 >.05, indicating that there was no significant main effect with females (mean = 9.0333, S.D. = 3.10258) and males (mean = 9.7000, S.D. = 3.03818).

The main effect of course on Power value yielded an F ratio of F (2, 114) = 12.378, p = 0.00 < .05, indicating that there was a significant main effect with Arts and humanities (M = 7.7750, S.D. = 2.09379), commerce (M = 10.8000, S.D. = 3.45075), science (M = 9.5250, S.D. = 2.80098). There was no significant interaction between the effects of gender and course disciplines on power value, F (2,114) = 5.254, p = .007 > .05.

Tukey's HSD test for multiple comparisons found that power value was significantly different between arts and humanities and commerce discipline (p = .001 < .05); There is no significant difference of power value between arts and humanities and science discipline (p = .068 > .05); there no significant difference of power value between science and commerce discipline (p = .368 > .05).

Table 4.11: Fixed-Effects ANOVA results using family prestige value as the criterion

Source	Sum of Squares	df	Mean Square	F	Sig.
Intercept	13653.333	1	13653.333	1.477E3	.000
Gender	2.700	1	2.700	.292	.590
Course	20.067	2	10.033	1.086E0	.341
Gender X Course	42.200	2	21.100	2.283E0	.107
Error	1053.700	114	9.243		

a. R Squared = .058 (Adjusted R Squared = .017)

The main effect of gender on Family prestige value (Factor I) yielded an F ratio of F (1, 114) = .292, p >.05, indicating that there was no significant main effect with females (mean = 10.8167, S.D. = 3.14342) and males (mean = 10.5167, S.D. = 3.00560).

The main effect of course on Family prestige value yielded an F ratio of F (2, 114) = 10.033, p = .341 > .05, indicating that there was no significant main effect with Arts and humanities (M = 11.1500, S.D. = 2.93126), commerce (M = 10.1500, S.D. = 2.94871), science (M = 10.7000, S.D. = 3.29880). There was no significant interaction between the effects of gender and course disciplines on family prestige value, F (2,114) = 2.283, p = .107 > .05

Table 4.12: Fixed-Effects ANOVA results using health value as the criterion

Source	Sum of Squares	df	Mean Square	F	Sig.
Intercept	11252.033	1	11252.033	2.181E3	.000
Gender	13.333	1	13.333	2.585E0	.111
Course	166.717	2	83.358	1.616E1	.000
Gender X Course	17.817	2	8.908	1.727E0	.182
Error	588.100	114	5.159		

a. R Squared = .252 (Adjusted R Squared = .219)

The main effect of gender on Health value (Factor J) yielded an F ratio of F (1, 114) = 2.585, p = .111 >.05, indicating that there was no significant main effect with females (mean =10.0167, S.D. = 2.58740) and males (mean = 9.3500, S.D. = 2.52999).

The main effect of course on Health value yielded an F ratio of F (2, 114) = 16.159, p = .000 < .05, indicating that there was no significant main effect with Arts and humanities (M =

8.8750, S.D. = 2.11451), commerce (M = 8.8250, S.D. = 2.28583), science (M = 11.3500, S.D. = 2.48637). There was no significant interaction between the effects of gender and course disciplines on health value, F (2,114) = 1.727, p = .182 > .05.

Tukey's HSD test for multiple comparisons found that health value was significantly different between science and commerce discipline (p = .000 < .05); There is a significant difference of health value between arts and humanities and science discipline (p = .000 < .05); there no significant difference of health value between Arts and humanities and commerce discipline (p = .995 > .05).

DISCUSSION

Theoretical implications

Based on the above statistical analyses, the hypotheses:

Personal values of Arts and Humanities discipline would not differ significantly from those in commerce discipline is rejected. There was a significant difference between the disciplines in power value, hedonistic value and economic value, with arts and humanities students having higher hedonistic and social value than commerce students, while commerce students have higher economic value and power value as compared to arts and humanities students.

Personal values of Commerce discipline would not differ significantly from those of science discipline is rejected. The social value, health value and power value of science discipline were significantly different from those of arts and humanities, with arts and humanities having higher mean scores in social value than science, and science discipline having higher mean scores than arts and humanities in health value.

Personal values of science discipline would not differ significantly from those of Arts and Humanities is rejected. There is a significant difference of health value and Economic value between students of commerce and science discipline with science students having higher health value than commerce students, while commerce students have higher economic value. Science students also have higher mean scores in knowledge value than arts and humanities students but not commerce students.

There would be no significant gender difference between the personal values of all disciplines is rejected. There was no significant difference of gender in all values except for social value, with the others having no significant difference in terms of value preference. A higher mean score is observed for girls of science discipline towards the value, while they remain similar for the other two disciplines.

There would be no significant interaction of gender and course both in value preference of students of all disciplines is rejected. As with the previous hypothesis, there was a significant interaction of both gender and course found on social value, however, it should be noted as with the previous hypothesis that no other value had such a difference.

These findings are consistent with Anana and Nique (2010) findings where personal values of students were found to influence their graduate career choices, and courses could be grouped together based on the cluster of personal values the students may possess. However, a majority of their categorization of courses into groups resulted in the grouping of unrelated courses being paired together, which accounts for the majority of personal values being commonly found among the students.

The findings are also supported by Knafo-Naom and Sagiv (2004) findings where it was found that bankers, managers, and financial advisors have a much more desire for power and achievement, and psychologists and social workers tend to value benevolence and universalism values a lot more than others.

The interaction of gender in the personal value emergence in social value, where females were found to have much more emphasis on it than males, and specifically, females in the science discipline is also corroborated by the findings of Asayesh et al. (2020) and Ali and Ahmed (2018) who found no significant difference of personal values for most values, except for some, namely, social and family values. Asayesh et al. (2020) also did corroborate the fact that girls have a more humanistic orientation to values than boys.

Limitations and future directions

The study was conducted via the online medium on a small population (N=120), therefore, the results thus obtained may not be as generalizable to a larger population. Furthermore, there was no study of the individual undergraduate courses within the course disciplines. Future researchers in this area may attempt to study the association of gender and course disciplines to find a causal relationship. Individual courses in discipline groups may also be studied to fortify the existence of the course group distinctions.

Practical implications

Since the curriculum of the same discipline follows similar patterns, and it has been found that some similarity of values exist between subject groups allowing them to be grouped on the basis of this similarity (Anana and Nique, 2010), this study may allow for a deeper understanding to develop about the values influencing student's drive to pursue certain courses, thereby allowing for much better outcomes for students in their fields, as well as allow educators to create better curriculums based on the student's values and lay the foundation for learning outcomes outcomes(Lietz, 2017).

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Conflict of Interest

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