



Knowledge, attitudes and practices towards prevention of Hepatitis B infection among medical students of Faculty of Medicine, University of Kelaniya



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Introduction

Hepatitis B infection, being the most contagious blood borne infection is a major concern amongst health professionals as they are at a higher risk. The preclinical students must be aware about the universal precautions before the start of their clinical rotations because the risk of exposure cannot be undermined.

Objective

To assess the knowledge, attitudes and practices towards the prevention of Hepatitis B infection among medical students.

Method

- ❑ Study design: Descriptive cross sectional study
- ❑ Study setting: Faculty of Medicine, University of Kelaniya
- ❑ Study period: November 2019-January 2020
- ❑ Study population: Medical students of Faculty of Medicine University of Kelaniya
- Exclusion criteria: Final year medical students & students who were supposed to sit for 1st examination for medical degrees
- Reference population: 15 doctors who work at CNTH
- ❑ Sample size: 400
- ❑ Sample method: Systematic sampling
- ❑ Study tool: Self-administered questionnaire of 4 parts. (relevant demographic data included)
- ❑ Data analysis: Adequate knowledge, attitude and practices will be determined by median scores of the reference group. R software was used for analysis

Results

Out of 400 participants, majority were females (67.5%) (Table 1), Most of the participants were Sinhalese (89.75%).

Table 1: Distribution of sex in the study sample

1st year		2nd year		3rd year		4th year	
Male	Female	Male	Female	Male	Female	Male	Female
29%	71%	34%	66%	49%	51%	18%	82%

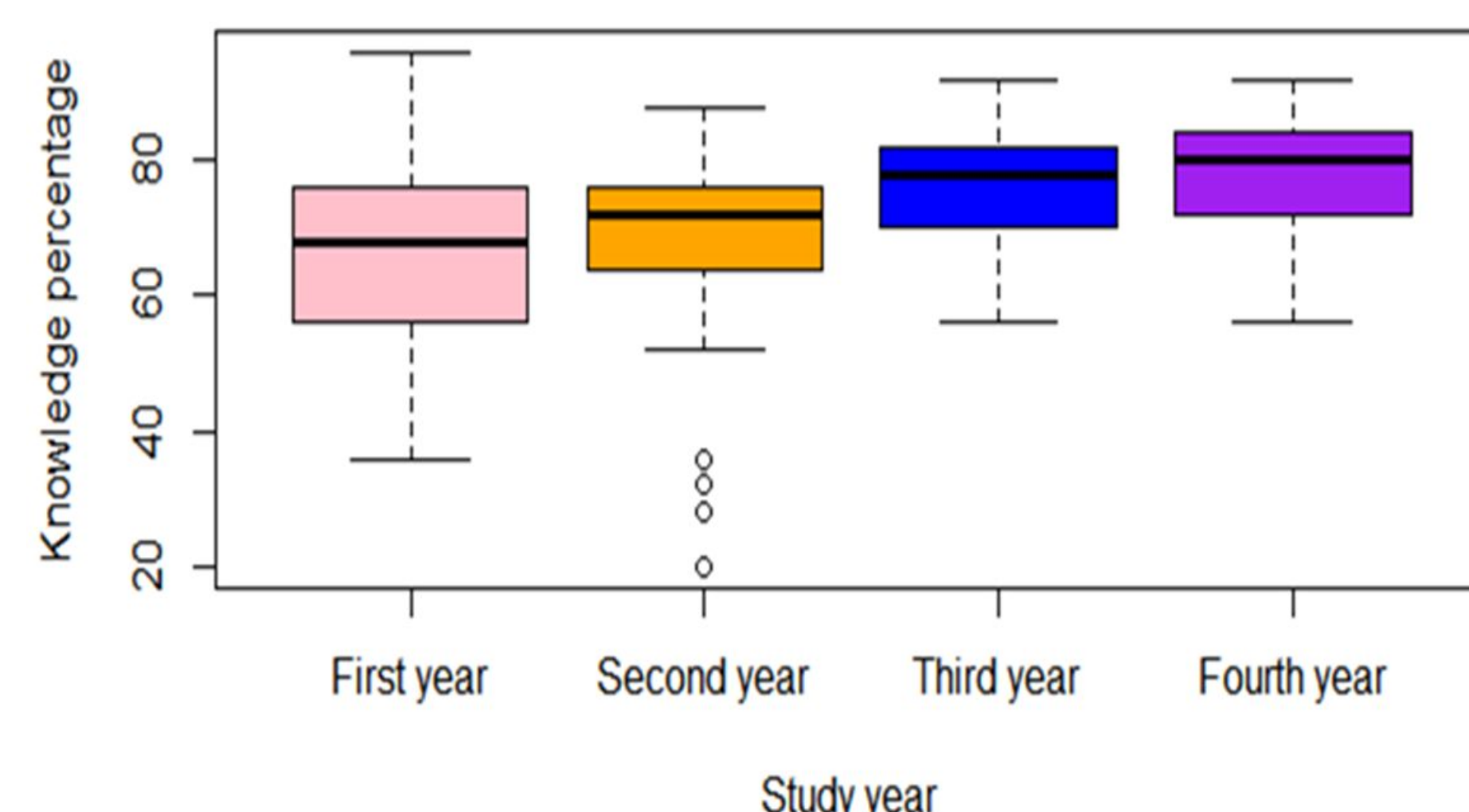


Figure 1: Percentage of knowledge score vs academic year

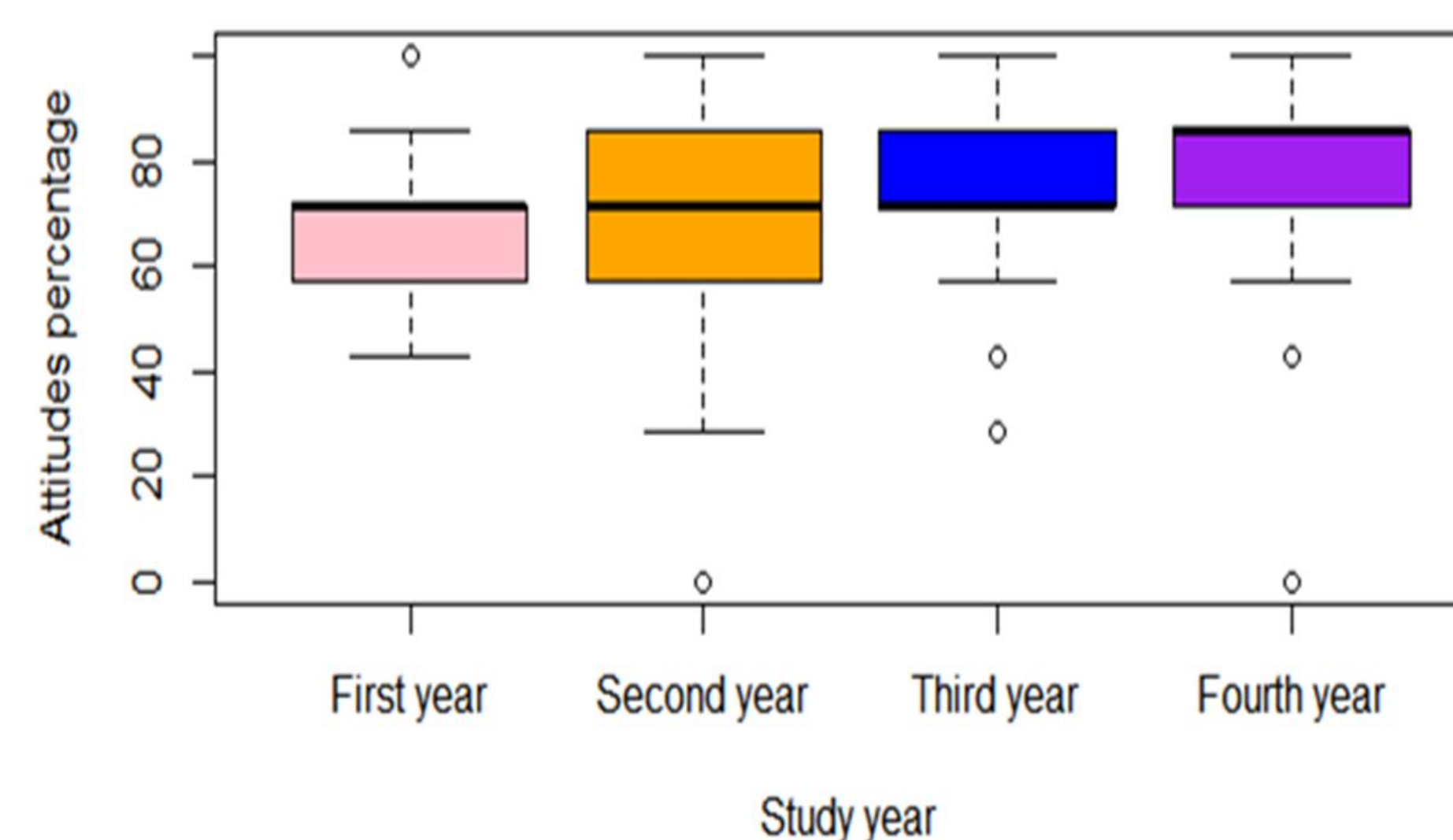


Figure 2: Percentage of attitude score vs academic year

According to Wilcoxon signed-rank test, there is a **significant median difference** between being preclinical or clinical and knowledge score (p-value < 0.001), attitudes score (p-value < 0.001).

Table 2: Percentage of adequate knowledge, attitudes and practices

Year of study	Knowledge		Attitudes		Practices	
	Adequate	Inadequate	Adequate	Inadequate	Adequate	Inadequate
1ST YEAR	1%	99%	12%	88%		
2ND YEAR	3%	97%	34%	66%		
3RD YEAR	69%	31%	49%	51%	60%	40%
4TH YEAR	90%	10%	55%	45%	88%	12%

Adequacy of knowledge, attitudes are **significantly associated** with,

- ❑ Being preclinical or clinical
- ❑ Having involved in a health related job (Table 3)

Table 3: Obtained p-values using chi-squared test for adequacy of knowledge, attitudes & practices

	Clinical or Preclinical	Sex	Previous health related job	Family member involved in a health related job	Relative involved in a health related job
Knowledge	<0.001	0.801	<0.001	0.121	0.557
Attitudes	<0.001	0.473	0.0185	0.077	0.251
Practices (Clinical only)		0.082	0.003	0.319	0.010

There's a **positive correlation** between

knowledge (Spearman $r = 0.4384$, p-value < 0.001)

(Figure 3), attitudes (Spearman $r = 0.3133$, p-value < 0.001) (Figure 4) towards the prevention of Hepatitis B and academic year.

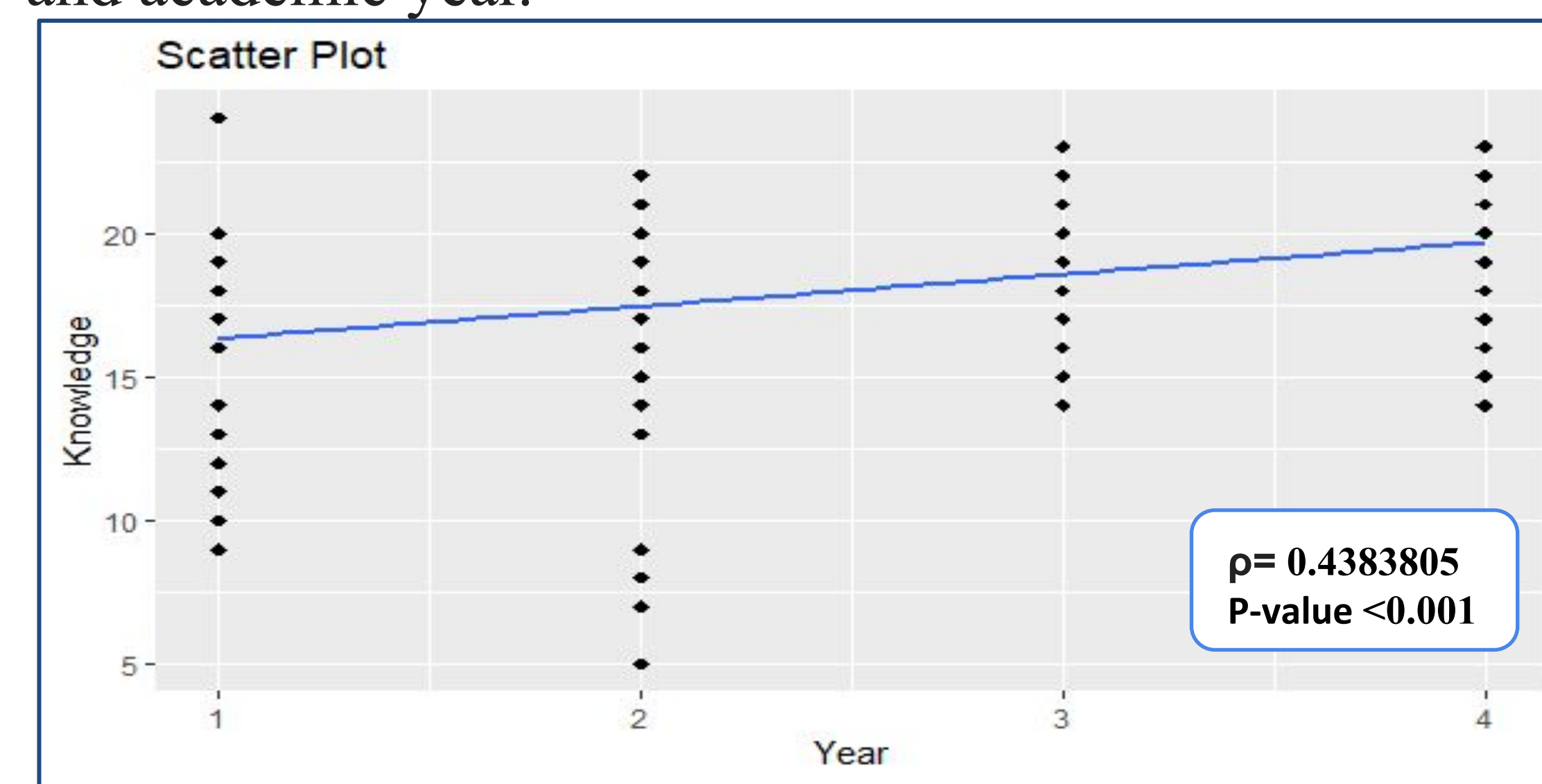


Figure 3: Scatter plot for knowledge scores and academic year

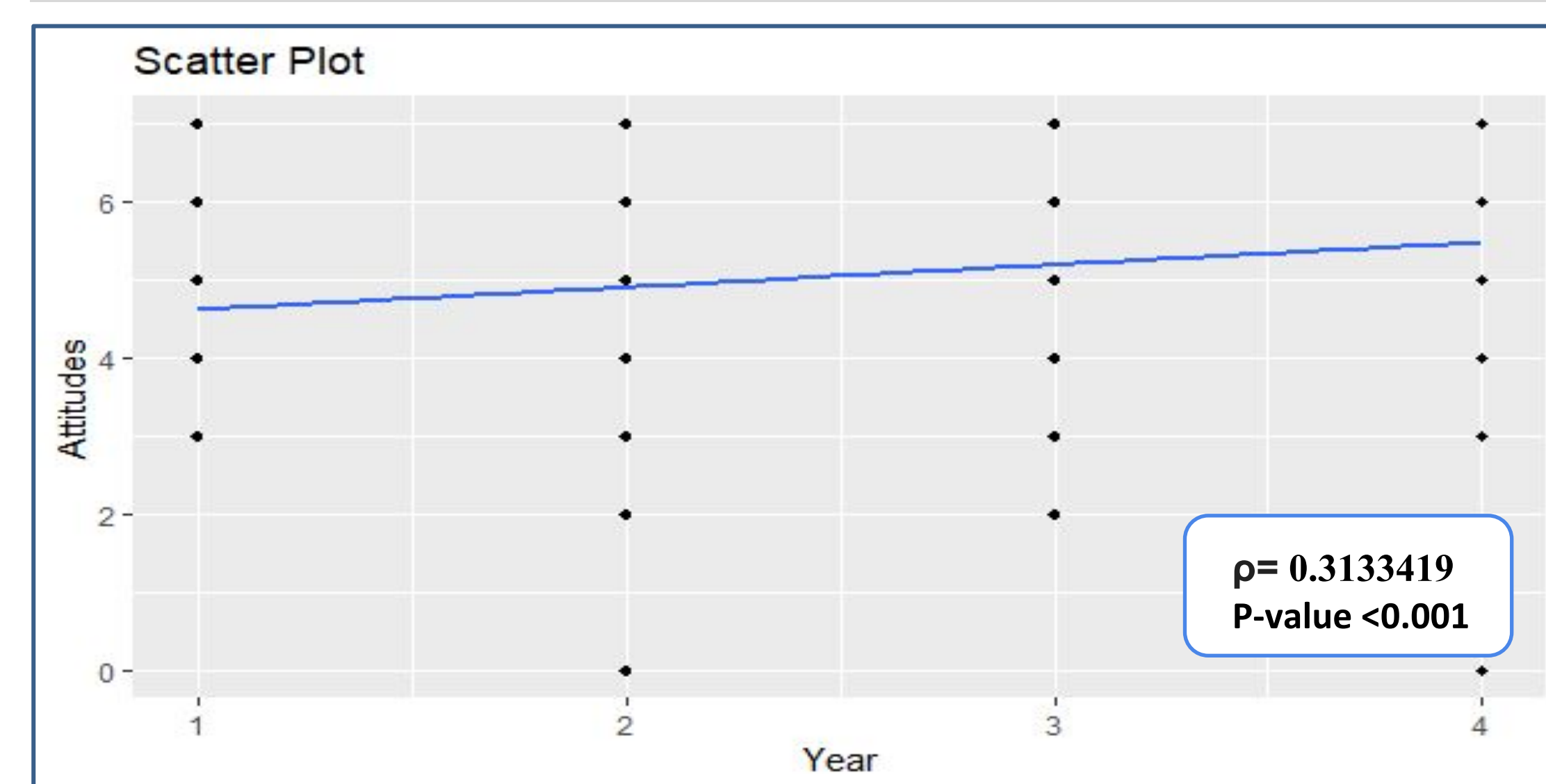


Figure 4: Scatter plot for attitude scores and academic year

Conclusion & Recommendations

1. The percentage of students who're of adequate knowledge ($z=16.1972$, $p<0.001$) and attitudes ($z=5.9902$, $p<0.001$) towards the prevention of Hepatitis B infection is significantly higher in clinical batches than preclinical batches.

2. The percentage of students from the clinical batches who're of adequate practices towards the prevention of Hepatitis B infection is higher in 4th year (88%) than 3rd year (60%).

3. There's a statistically **significant association** between being preclinical or clinical and their knowledge (p-value < 0.001), attitudes (p-value < 0.001) towards the prevention of Hepatitis B infection and there's a **positive correlation** between academic year and knowledge, attitudes.

4. The lack of knowledge and attitudes of the preclinical batches, towards the prevention of Hepatitis B infection could be highlighted. Vaccination of these students before the start of their clinical rotations and methods to build up proper knowledge on the universal precautions and attitudes towards the prevention of Hepatitis B infection is recommended.

References

Wutayd, O. Al, Alrehaili, A., Al Safrani, K., Abalkhail, A., & Aleidi, S. M. (2019). Current Knowledge, Attitudes, and Practice of Medical Students Regarding the Risk of Hepatitis B Virus Infection and Control Measures at Qassim University, 7(3), 435-439.

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