



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1218659>Available online at: <http://www.iajps.com>**Research Article****DESCRIBING MEDICAL STUDENT'S CURIOSITY ACROSS  
FOUR YEAR CURRICULUM: AN EXPLORATORY STUDY IN  
DHQ HOSPITAL KASUR****Dr. Qurrat ul Ain, Dr. Abdul Samad, Dr. Hafiz Ahmad Atiq ur Rehman Siddiqui**

Department of Community Medicine, Central Park Medical College Lahore

**Abstract:**

**Background:** Intellectual curiosity is referred as willingness for knowledge which may lead to the behaviors which is exploratory and it includes the unchanging and inherited characteristic (i.e. trait curiosity) and a state which is context dependent on a variable (i.e. state curiosity)

**Objective:** The objective of this exploratory research was to explain medical students' intellectual curiosity.

**Study Design:** Cross sectional study.

**Study Setting:** DHQ Hospital Kasur.

**Study Duration:** April – June 2017.

**Inclusion criteria:** Nursing students of either gender.

**Data Collection and analysis:** 100 nursing students were given curiosity inventory of Melbourne in those where students have described themselves in order to indicate their feeling at that point of time and how they feel in general regarding curriculum. Scoring was done to see the state and trait anxiety among students regarding curriculum and gender difference was also evaluated regarding curiosity index. All the information was entered in a structured questionnaire. Data was analyzed using SPSS version: 21.0. Standard deviation and Mean on the items were calculated for state and trait anxiety for Melbourne curiosity index. Gender difference for curiosity index was also evaluated.

**Results:** 70.0% of respondents were female and 30.0% were male. Mean State curiosity was 54.23 SD 9.923 with a minimum of 24 and maximum of 75. Mean Trait curiosity was 56.73 SD 10.71 with a minimum of 24 and maximum of 75. State and trait curiosity was dichotomized to evaluate less curious and curious students regarding curriculum. 39.0% of students were less curious (score 20 - 50) as a state curiosity regarding curriculum as compared to 29.0% for trait curiosity. 61.00% were Curious (score 51-80) as state curiosity as compare to 71.0% for trait curiosity regarding curriculum.

**Conclusion:** In accordance to curriculum the state and trait curiosity index was high in students of medical.

**Key words:** Medical Curriculum, anxiety, trait anxiety, state anxiety, curiosity

**Corresponding author:**

**Dr. Qurrat ul Ain,**  
Department of Community Medicine,  
Central Park Medical College,  
Lahore.

QR code



Please cite this article in press Qurrat ul Ain *et al.*, **Describing Medical Student's Curiosity across Four Year Curriculum: an Exploratory Study in DHQ Hospital Kasur**, *Indo Am. J. P. Sci.*, 2018; 05(04).

**INTRODUCTION:**

Intellectual curiosity can be characterized as a need for learning which points to exploratory manners and contains of a characteristic and firm trait (i.e. trait curiosity) and an adaptable context-dependent state (i.e. state curiosity). Though intellectual curiosity has been measured a significant characteristic of medical practice and education, its association to medical education has not been pragmatic investigated

1. Curiosity has been conceptualized as plea for innovative knowledge and information.
2. Considering curiosity for learning and development.
3. Persona scholars established numerous measures to evaluate individual transformations in curiosity. A very recent measure for trait curiosity investigate the need to addition knowledge or tactile experience (e.g., enthusiasm for intellectual problems or curiosity for new sound and sight), however these instruments do not quantify social curiosity, characterized as a concern in how other individuals act, feel and think. Nonetheless, social curiosity is vital for the constructing and utilization of interpersonal organizations and connections, which has been as a focal human task.
4. In a research by a four-year undergrad program at McGill University, finished the Melbourne Curiosity Inventory as a ration of their trait and state intellectual curiosity. Trait curiosity was considerably higher than state curiosity ( $M = 64.5$ ,  $SD = 8.5$  versus  $M = 58.5$ ,  $SD = 11.6$ ) in general, while each year of preparing. This research is the first to portray trait and state intellectual curiosity in undergrad medical education. Verdicts propose that medical students' state curiosity may not be ideally bolstered and feature paths for advance research
5. Scholars have demonstrated that showing undergrad research colleagues to the interdisciplinary educational programs prompted expended cooperation in, and optimistic approaches about, interdisciplinary classroom and lab exercises. Items, for example the interdisciplinary and integrative nature of student research projects, demonstrated no distinction when contrasted with those of students who were not presented to the interdisciplinary educational programs. Though, students presented to the preparation occupied with more interdisciplinary practices toward of the finish of the program than students who were not prepared in interdisciplinary research procedures.

6. The reason of this exploratory research was to portray medical students' intellectual curiosity across a four-year undergrad program.

**OBJECTIVES:**

Purpose of this study is to assess curiosity level among medical students regarding curriculum.

**OPERATIONAL DEFINITION:**

**Curiosity:** Curiosity was defined as state curiosity and trait curiosity using Melbourne curiosity inventory. Trait Form contains (20) Twenty items that evaluate individual differences in the general capacity and state form contains 20 items that assess individual difference how you feel 'right now, that is at this moment' to experience curiosity regarding medical curriculum.

**MATERIAL AND METHODS:**

**STUDY DESIGN:** Cross sectional study

**STUDY SETTING:** DHQ Hospital Kasur, Pakistan

**DURATION OF STUDY:** Three months from April 2017 – June 2017

**SAMPLING TECHNIQUE:** Non probability / purposive / convenient sampling

**SAMPLE SELECTION:****Inclusion criteria:**

- Regular medical students
- Either gender

**Exclusion criteria:**

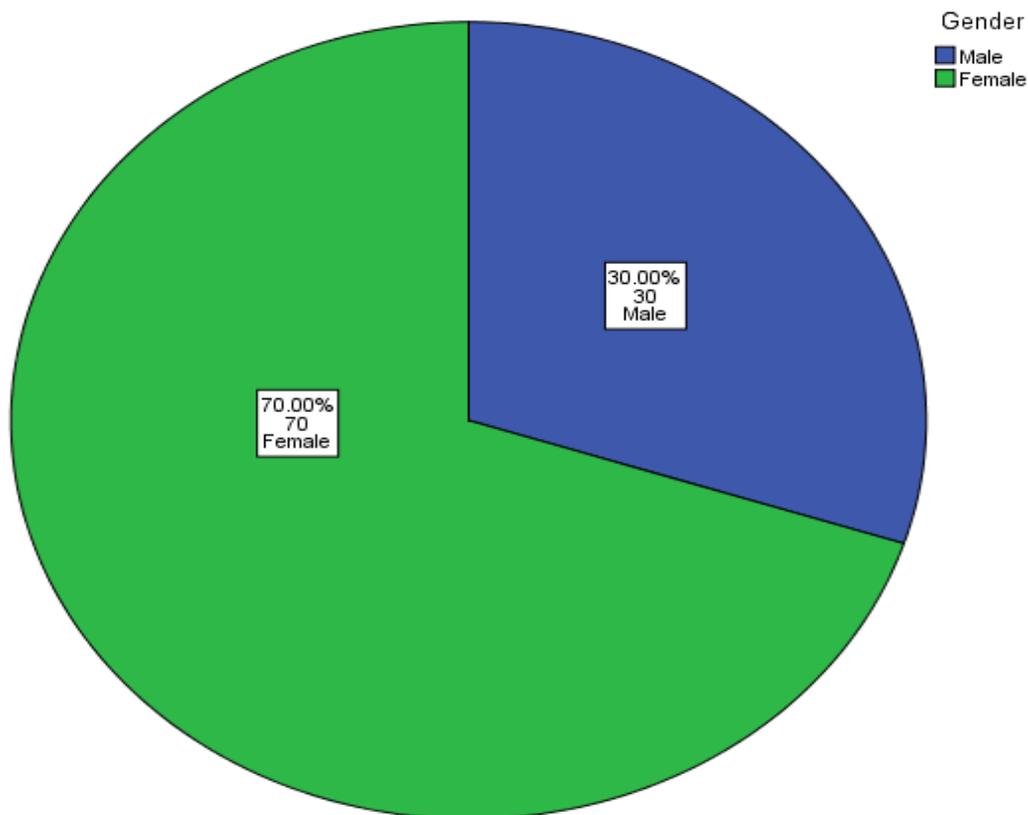
- Students with supplementary in second profession
- Detainees

**DATA COLLECTION PROCEDURE:**

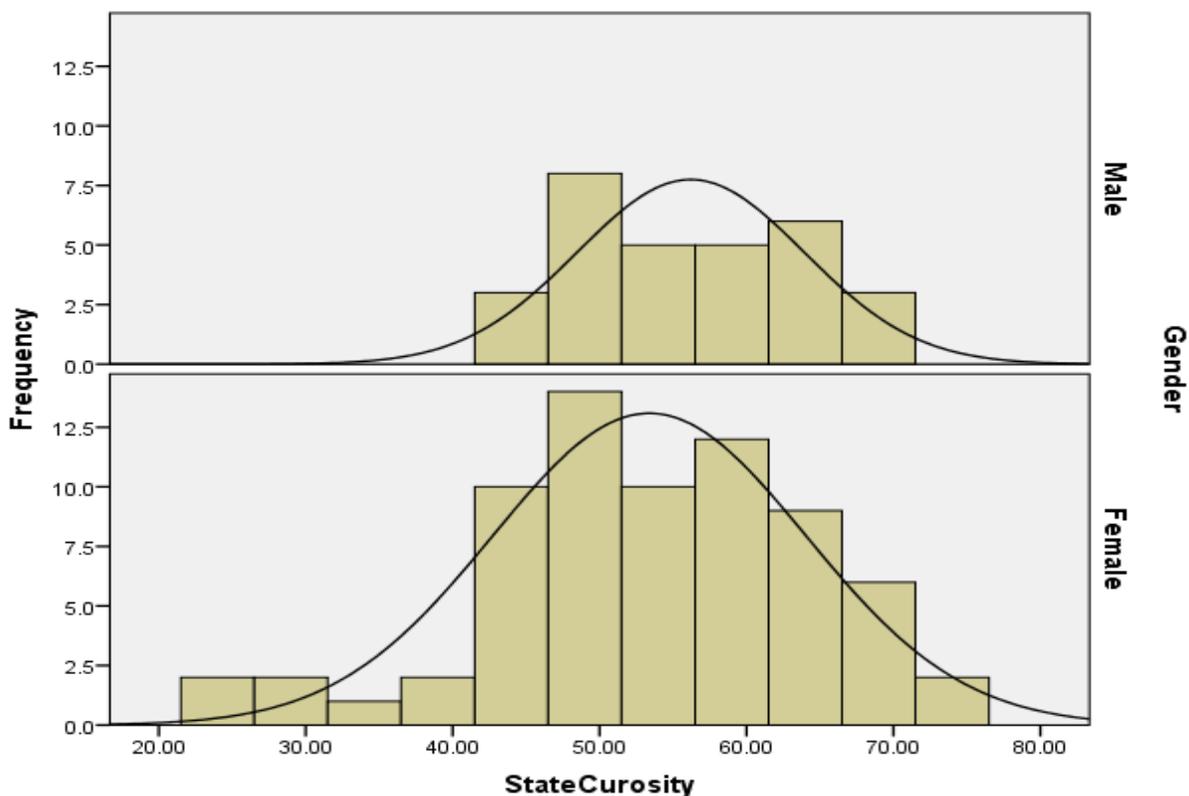
100 medical students were given Melbourne curiosity inventory in which a numerous of statements which individuals have used to define them to indicate how they feel 'right now that is at this moment and how they feel in general curriculum. Scoring was done to see the state and trait anxiety among students regarding curriculum and gender difference was also evaluated regarding curiosity index. All the information was entered in a structured questionnaire. (Attached)

**DATA ANALYSIS PROCEDURE:**

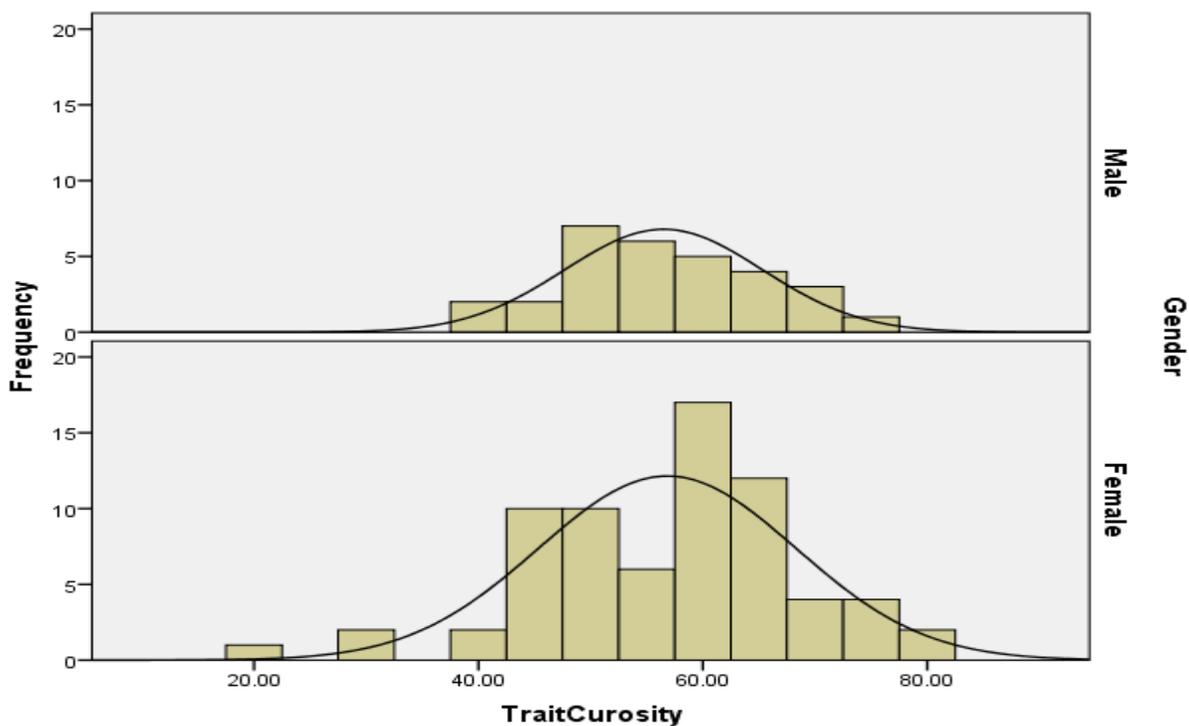
Date was analyzed using SPSS version: 21.0. Mean and standard deviation was calculated for state and trait anxiety for Melbourne curiosity index. Gender difference for curiosity index was also evaluated.

**RESULTS AND MAIN FINDINGS:****Graph no: 1 Gender of Respondents.****Table no: 1 Descriptive statistics for State Trait Curiosity****Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
State Curiosity	100	24.00	75.00	54.2300	9.92381
Trait Curiosity	100	20.00	79.00	56.7300	10.71566



Graph no: 2 State Curiosity and Gender of Respondents.



Graph no: 3 Trait Curiosities and Gender of Respondents.

**Table no: 2 State-Trait Curiosities and Gender of Respondents.**

	State Curiosity among students		Trait Curiosity among students	
	Frequency	Percent	Frequency	Percent
Less Curious (Score 20 - 50)	39	39.0	29	29.0
Curious (Score 51 - 80)	61	61.0	71	71.0
Total	100	100.0	100	100.0

**Table no: 3 State Curiosity and Gender of Respondents.****Crosstab**

	Gender		Total
	Male	Female	
Less Curious (Score 20 - 50)	10	29	39
State Curiosity among students	33.3%	41.4%	39.0%
Curious (Score 51 - 80)	20	41	61
	66.7%	58.6%	61.0%
Total	30	70	100
	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.578a	1	.447		

**Table no: 4 Trait Curiosities and Gender of Respondents.****Crosstab**

	Gender		Total
	Male	Female	
Less Curious (Score 20 - 50)	8 26.7%	21 30.0%	29 29.0%
Curious (Score 51 - 80)	22 73.3%	49 70.0%	71 71.0%
Total	30 100.0%	70 100.0%	100 100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.113a	1	.736		

**RESULTS:**

100 students were given Melbourne Curiosity inventory to assess state and trait curiosity among medical students for curriculum. 70.0% of respondents were female and 30.0% were male. (Graph no:1)

Mean State curiosity was 54.2300 SD 9.92381 with a minimum of 24 and maximum of 75. Mean Trait curiosity was 56.7300 SD 10.71566 with a minimum of 24 and maximum of 75. (Table no:1)

State and trait curiosity was dichotomized to evaluate less curious and curious students regarding curriculum. 39.0% of students were less curious (score 20 - 50) as a state curiosity regarding curriculum as compared to 29.0% for trait curiosity. 61.00% were Curious (score 51-80) as state curiosity as compare to 71.0% for trait curiosity regarding curriculum. (Table no:2)

State and trait curiosity were cross tabulated with gender. Regarding state curiosity 33.3% of males and 41.4% of females were less curious regarding curriculum. 66.7% of males and 58.6% of females were curious (score 51-80) regarding curriculum. Regarding Trait Curiosity 26.7% of males and 30.0% of females were less curious (score 20 - 50) regarding curriculum. 73.3% of males and 70.0% of females were curious (score 51-80) regarding curriculum. (Table no:4)

**DISCUSSION:**

Curiosity has for some time being the practice to recognize among different aspects of curiosity instead of survey it as a solid theory. For example, Berlyne et al as of now drew a division amongst epistemic and perceptual curiosity. Expanding on this notion, enthusiasm in curiosity has lately increased momentum, as appeared by the advancement of new

scales to evaluate its different features. Perceptual curiosity alludes to the acquirement of new data by tactile encouragement (e.g. sounds and sights) and is evaluated by the lately established Perceptual Curiosity Gauge. Another feature of curiosity mentions to the inclination to pursue prospects for getting ideas, knowledge and facts.

Intellectual curiosity can be characterized as a plea for learning that prompts to exploratory conduct and comprises of an inborn and stable trait (i.e. trait curiosity) and a variable context-dependent state (i.e. state curiosity). Though intellectual curiosity has been measured a vital trait of medical practice and education, its association to medical education has not been observationally researched.

The Melbourne Curiosity Inventory has one 20-question trait and one 20-question state curiosity subscale, while the State-Trait Personality Inventory has 10-question trait and state curiosity subscales (the Trait-Scale Personality Inventory additionally has 10-question anxiety and anger subscales not utilized in particular research); both the Melbourne Curiosity Inventory and Trait-Scale Personality Inventory are considered measures of data chasing, the intellectual sort of curiosity.

In a study done by Sternszus *et al* 402 out of 751 students finished the stock (53.5%). Trait curiosity was essentially higher than state curiosity ( $M = 64.5$ ,  $SD = 8.5$  versus  $M = 58.5$ ,  $SD = 11.6$ ) generally speaking, and within each year of exercise.

This work is the initial study done in Pakistan to define trait and scale intellectual curiosity in undergraduate medical training. Verdicts recommend that medical students' state curiosity may not be ideally sustained and feature paths for additionally research. In our study State and trait curiosity among students. Regarding state curiosity 33.3% of males and 41.4% of females were less curious regarding curriculum. 66.7% of males and 58.6% of females were curious (score 51-80) regarding curriculum. Regarding Trait Curiosity 26.7% of males and 30.0% of females were less curious (score 20 - 50) regarding curriculum. 73.3% of males and 70.0% of females were curious (score 51-80) regarding curriculum

In a guideline construct concept exploration on intellectual curiosity crosswise disciplines to explain the existing state of the science the analysis was utilized to recognize applied parts of intellectual curiosity and the interrelationships among them. The discoveries have been incorporated into an abstract meaning of intellectual curiosity and gave a starting

point for model development. Our exploration are relevant to medical education and hold huge ramifications for making teaching-learning environments and educational module, which enhance or upgrade preconditions, characteristics, and concerns of intellectual curiosity.

### CONCLUSION:

70.0% of respondents were female and 30.0% were male. Mean State curiosity was 54.23 SD 9.923 with a minimum of 24 and maximum of 75. Mean Trait curiosity was 56.73 SD 10.71 with a minimum of 24 and maximum of 75. State and trait curiosity was dichotomized to evaluate less curious and curious students regarding curriculum. 39.0% of students were less curious (score 20 - 50) as a state curiosity regarding curriculum as compared to 29.0% for trait curiosity. 61.00% were Curious (score 51-80) as state curiosity as compare to 71.0% for trait curiosity regarding curriculum. There was a high state and trait curiosity index among medical students regarding curriculum. The conclusion of my study is: There was a high state and trait curiosity index among medical students regarding curriculum. The curiosity index was higher among males as compared to females.

### RECOMENDATION:

We recommend that curiosity among all professional regarding curriculum must be explores as being increasing complexity of subject and addition of new subjects change in curriculum makes medical student more prone to stress. This study serve as baseline for evaluating curiosity among medical students regarding curriculum further study extending all medical colleges both private and public

### REFERENCES:

1. Kashdan TB. The neglected relationship between social interaction anxiety and hedonic deficits: Differentiation from depressive symptoms. *Journal of Anxiety Disorders* 2004; 18, 719–730.
2. Litman JA, Pezzo MV. Individual differences in attitudes towards gossip. *Personality and Individual Differences*. 2005; 38, 963–980
3. Trudewind C. Curiosity and anxiety as motivational determinants of cognitive development. In J. Heckhausen (Ed.), *Motivational psychology of human development: Developing motivation and motivating development* (pp. 15–38). 2000; New York: Elsevier.
4. Pickett CL, Gardner WL, Knowles M. Getting a cue: The need to belong and enhanced sensitivity to social cues. *Personality and Social Psychology Bulletin* 2004; 30, 1095–1107.

5. Sternszus R, Saroyan A, Steinert Y. Describing medical student curiosity across a four year curriculum: An exploratory study. *Med Teach*. 2017 Apr;39(4):377-382.
6. Misra S, Harvey RH, Stokols D, Pine KH, Fuqua J, Shokair SM, et al. Evaluating an interdisciplinary undergraduate training program in health promotion research. *Am J Prev Med*. 2009 Apr;36(4):358-65.
7. Collin RP, Litman JA, Speilberg CD. The measurement of perceptual curiosity. *Pregmon Personality and Individual Differences* 2004; 36: 1127–1141
8. Litman JA1, Silvia PJ. The latent structure of trait curiosity: evidence for interest and deprivation curiosity dimensions. *J Pers Assess*. 2006 Jun;86(3):318-28.
9. Russell BH. Intellectual curiosity: a principle-based concept analysis. *ANS Adv Nurs Sci*. 2013 Apr-Jun;36(2):94-105. doi: 10.1097/ANS.0b013e3182901f74.