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Abstract

This study was aimed at investigating the role of perceived parenting styles in predicting curiosity and exploration among university students. It is obvious that personality, behavioral and cognitive characteristics of human are affected by parents and it seems that parenting styles that parents use in rearing their children affect their personality and cognitive characteristics. Data were collected from Bahauddin Zakariya University Multan, Pakistan. Sample of 171 students were selected through convenient sampling. Two research instruments were used to measure the variables. Findings of the study reveal that permissive and authoritative parenting styles are the significant positive predictors of curiosity and exploration among students. Moreover, there is positive correlation among these constructs. Furthermore, results indicate that there is no significant impact of authoritarian parental style in predicting curiosity and exploration. In addition, there was no statistically significant difference of curiosity and exploration between male and female students. In the light of study, parents need to practice the health parenting styles to nourish their children.

Keywords: Perceived parenting styles, curiosity, exploration

1. Introduction

A developing body of research of interest has hypothesized so as innate conditions for interest, or a drive with learn unique things, improve knowledge as well as storing capacity (Gruber et al, 2019). According to the results, adult neuron related imagination's researches had shown so as "before-knowledge" interest conditions cause an increase in cerebral activity in the striatum and hippocampus, two brain regions associated with memory and rewards, respectively (Gruber et al., 2014; Jepma et al., 2012; Kang et al., 2009; Ligneul et al., 2018). These improvements of pre-information curiosity-related brain activity forecast the advantages with interest for after storing capacity production (Gruber et al., 2024). Dopamine is released when we are curious, and it not only makes us feel good but also helps with memory and observation. Our evolutionary and developmental processes as humans are intricately entwined with the brain's desire and reward center (which generates the neurotransmitter dopamine). The dopamine system has been crucial in our evolution into the complex organisms we are because social scientists believe that reward drives all action and conduct produces evolutionary adaptability (Muller, 2014).

According to a study, almost 40% for population, sixty trillion individuals, are "inquisitively inspecting" regarding to government, crafts, as well as discipline. These people spend a lot of time reading newspapers, watching related television shows, and using online media (Robert, 2006).

Previous research aims of explore the association among mothers' parental approaches and students' creativity and curiosity. The post-event research plan is used in this study. 200 female high school students from Tehran City were chosen by the researchers through a multistage selection process to meet the study's goal. The Coper Smith Attitude Test, the Ghobari Banab and YarAhmadi Curiosity Scale, and the Abedi Creativity Scale were used to measure the variables. The findings demonstrated a strong relationship between acceptance and student curiosity as well as democracy and innovation. On the other side, there is a substantial correlation between acceptance and the number and order of children born as well as the mother's age, education, and parenting style (Fatimah et al., 2014)

According to a study, parenting practices have a significant impact on children's personality development and academic success. Additionally, it has been shown that parental acceptance of teenagers positively influences their sense of self, curiosity, cognitive ability, and achievement. Typically, we observe that teenagers with loving parents were discovered to be socially and emotionally stable and active (Sunil Kumar, 2014).

Indeed, research on newborns and early children has revealed that learning is fueled by exploration and surprise (Kidd & Hayden, 2015; Schulz, 2012). For instance, newborns choose material of intermediate complexity and investigate knowledge based on their own interests (Begus et al., 2014, 2016). (Kidd et al., 2012). According to Schulz and Bonawitz (2007), toddlers favour of take part in games whose workings toddlers' refusal fully comprehend. This suggests that children should structure their exploration to maximize knowledge acquisition.

Limbic system-converged head matrix of individuals has been linked to exploratory behaviors that improve learning compared to receiving the same inputs without engaging in energetic investigational nature (Voss et al., 2011a; 2011b). Revisiting previously viewed objects was an interesting investigation design which improved studying as well as limbic system-grey matter interaction (Voss et al., 2011b); this pattern is alike of planned investigation design described of examinee convolution. The results (Buckner, 2010; Eichenbaum & Fortin, 2009; Wang et al., in press) link the limbic system and grey matter layer of connected jurisdiction for investigation, that might expand present useful explanations for such shapes in making favourable judgments focused of prolonged storage (Buckner & Carroll, 2007; Schacter et al., 2012). During reward seeking and reinforcement learning, dopastate-harmonized passageway in the extra-pyramidal motor system had to be linked in parallel studies (Hills, 2006; Pennartz et al., 2009), and these

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pathways may interfere of the limbic system towards promote simultaneous storage-recompense effects to investigation (Shohamy & Adcock, 2010).

Functional magnetic resonance imaging (fMRI) is now being used by neuroscientists to track brain activity during novel and intriguing circumstances. The brain regions that control autonomic arousal and discomfort are more intensely active when someone is intrigued (e.g., the anterior insula and anterior cingulate cortex). The reward-related brain regions are then activated when the question at hand is satisfied, or when we have access to relevant information (Jepma et al., 2012). Curiosity and a love for novelty have been connected in the field of human genetics to the migration of early humans to the remote corners of the planet. We are aware that the earliest humans originated in Africans country almost one hundred fifty thousand periods before.150,000. Humans left Africa in great numbers some 100,000 years later, and by 12,000 years ago, they had spread to every corner of the world. The genes associated with novelty seeking, notably the DRD4 exon 3 gene alleles 2R and 7R, are interestingly more prevalent in those human cultures who moved the farthest away from Africa (Lehman & Stanley, 2011; Pisula et al., 2013). Actually, authors with respect to the N.I.C.H as well as Individuals Growth found that 5-month-old newborns who investigated their environment with greater vigour were more likely to do well in school throughout their infancy and into high school (Bornstein et al., 2013). One study found that elementary school-aged children learned significantly more when they read books on topics they were already curious about. This included picking out more details and remembering what they read for longer periods of time (Engel, 2011).

1.1. Curiosity

A positive emotional-motivational system known as curiosity is linked to the identification, pursuit, and self-control of fresh and difficult situations. 2019 (Kashdan et al.). Since psychology's inception, to learn for encouragement, feeling alongside perception—as well as fields as diverse as life science, profit-making, robots, as well such like fields like guidance—had all centered-on curiosity (Kashdan et al., 2018). Curiosity transcends all barriers, including those of culture, circumstance, and even of time itself. Early thinkers recognized the importance of curiosity to human behavior and conceived it as a fundamental, homeostatic desire that functions similarly to hunger or thirst (Hardy et.al, 2017).

1.2. Types of Curiosity

The three aspects of personal curiosity are as follows. Curiosity as a state attribute, conscious interest as well as emotional interest. State and attribute curiosity are two sub-dimensions of condition attribute interest. Condition interest is the encouraging situation that reflects level for interest at the given duration. The term “trait curiosity” refers to a personality characteristic that affects how often people experience curiosity in general (Chang & Shih, 2019).

Divertive curiosity and Specific curiosity are two examples of the different dimensions that make up perceptual curiosity. The impulse to investigation sparked via weariness as well as seek of anything unique alongside intriguing is what is known as diverse curiosity. Specific curiosities, the drive to lessen uncertainty, and the motivating mood for investigation are influenced by outside factors (Chang & Shih, 2019).

Conscious interest had to be described like need of learning so as spurs inquiry as well as application order to close knowledge gaps and address intellectual puzzles, hence promoting academic success and intellectual growth. The two varieties of epistemic curiosity are attentiveness-kind conscious interest as well as poverty-kind conscious interest. While poverty-kind conscious interest identifies a strong desire to clear up uncertainty and get rid of unwanted states of ignorance, Interest type epistemic curiosity entails intellectual investigation of brand-new concepts for fun (Berlyne, 1962; Litman, 2007, 2010; Litman et al., 2010).

Differential Curiosity of Individuals.

Curiosity and intrinsic motivation have a favorable link, according to certain earlier studies (Litman, 2005; Shroff, Vogel, & Coombes, 2008). Internal drives to learn new things or to fill in knowledge gaps are sparked by curiosity. Women who studied engineering or technology in college are more motivated to learn English than men are. It was shown that female students are more adept at learning English than male students. Women typically have stronger attitudes toward learning, greater listening abilities, and are more focused on input, such as listening. In contrast, males think more analytically and are less sensitive than females. They are also more concerned with output, such as talking. These could be the explanations for why women perform better in learning. The research mentioned above is for university students learning English, it should be highlighted. (Rajasekaran & Narayanan 2007). There is a study being done by Schatt that focuses on the issue of music (2011). The study found that female students practise instruments and music more frequently than male students do, and that practise time and intrinsic motivating beliefs are highly connected. Motivational beliefs serve as guides for students' thoughts, attitudes, and actions as they learn certain subjects, and they can result in academic achievement (Boekaerts, 2002; Clayton et al, 2010).

1.3. Exploration

The idea of exploration for discovery can be combined with a few more components that aren't specified in any of the four senses just discussed to characterise social science exploration. Even though Vogt (1999), to his credit, at least provides a useful concept of exploratory research, it is necessary to construct such a definition because none now exists. However, the definition that follows is more in line with the thesis in this book than his:

Purpose for social science investigation have to maximize determination with generalizations which guide of illustration as well as understanding about specific feature related to public either mental survival. This has of vast-stretching, meaningful, structured as well as prearranged undertaking. Depending on the perspective, such exploration is a unique means of organizing discipline—the discipline procedure—the particular organized styles (like opposed to attestation), the specific organized style, as well as prevalent individual directions about investigator. Graphic figure, mortal suggestions, racial reminder, constitutional adjustments, public procedure, as well as commonly held trust alongside trust process are just a few of the numerous and various emergent generalizations. The term might easily be expanded to encompass all of science. Simply stating that the generalizations are applicable to a certain aspect of social, psychological, or physical existence is sufficient, and this can subsequently be supported with relevant examples. And sure, there is exploration in physical science, such as in astronomy, geology, and entomology, where it is frequently

carried out by amateurs who are required in part because experts alone cannot methodically cover the entire surface of the earth or outer space (Stebbins, 1978).

Amidst suppositions examining encouragement abilities like reasons for individual's activities, the idea that human activity is occasionally motivated via simple keen of achieve satisfying standard for provoking had been significant (e.g., Berlyne 1960; Fiske & Maddi 1961). Optimum stimulation standard (OSL) is a term used in the literature to describe the level of stimulation that is considered optimal by a given person. Study of it alleged demand of provoke had revealed so as individuals protect with favoring middle standards for provoking (McReynolds 1971).

An individual may explore their environment to find the right amount of stimulus. Exploratory activity is defined as "conduct with the sole purpose of modifying the sensory field" by Berlyne (1963, p. 288). Exploration is the practice in question.

Exploration types.

Humans engage in both aimless and purposeful exploration (Gershman, 2018a; Wilson et al., 2014a). Recent studies have revealed that health volunteers (HVs) combine the two behavioral strategies for guided investigation as well as irregular investigation to decide whether about explore or exploit a situation. In guided investigation, details awaiting desires investigation through selection as well as irregular investigation, behavioral changeability demands investigated via possibility (Wilson et al, 2014). According to earlier research, purposeful exploration rises during adolescence but random exploration stays the same (Somerville et al., 2017) that frontal pole inhibition reduces only directed exploration, not random exploration, and that atomoxetine, a norepinephrine reuptake inhibitor, affects only random exploration, not directed exploration (Warren et al., 2017).

Purpose-guided, detail-acquiring has controlled through unreliability of representative's agent's replica for way globe is structured, as opposed to random exploration. This suggests which representative only specimen choices which is instructive, i.e., those along with greatest degree of ambiguity. Higher confirmed limited algebra (Agrawal, 1995; Auer et al., 2002; Kaelbling, 1994; Sutton & Barto, 1998a) is a well-known example of uncertainty-sensitive exploration because it gives options that haven't been sampled in a while or haven't been sampled recently the unreliability extra-offer (Kakade & Dayan, 2002); of choices that have a significant degree of ambiguity or which has not been sampled recently.

1.4. Parenting Styles

Baumrind's early parenting research relied over concept of parenting command to create 3 distinct parental philosophies: trustful, autocratic, liberal (Baumrind, 1996). According to the definition of parental control, it is "the demands guardian form of kids for get included to circle of relatives as an entire, through way of their adulthood needs, supervision, and disciplinary efforts and willingness to confront the kid who disobeys" (Baumrind et.al, 1991). Structure and control can be used to describe demanding behavior at high levels. Parental control and punishment techniques are among the parenting behaviors covered by this dimension. Parental responsiveness was added by Maccoby and Martin as an additional parenting component, building on Baumrind's paradigm for parental style. Warmth, support, and engagement are three parenting traits that indicate how responsive a parent is (Maccoby & Martin, 1983). Unique categories incorporated 3 parenting styles early via (Baumrind et. Al 1991), further extra approach: uninterested parental approy, and classified guardians like either huge and little of every patterns.

Families with authoritative parents tend to have children with better results than those with non-authoritative parenting approaches. In a different study, teenagers who have both authoritative parents or whose mother is the only one who is authoritative report more well-being than individuals who do not have either authoritative parent (Milevsky et.al, 2008). Similarly, when factors relating to the mother were taken into account, researchers discovered that having a strong father was associated with favorable results in teenagers. These data indicate that having even one authoritative parent, regardless of the parent's gender, is advantageous for adolescents' outcomes (Bronte-Tinkew et.al, 2006). Surprisingly, researchers discovered that monitoring differs amongst parenting philosophies. Researchers discovered that authoritarian parents supervise their children more frequently during childhood and less frequently during adolescence (Luyckx et.al, 2011).

1.5. Authoritarian parenting style

Parents that are overbearing and demanding are rarely receptive. Autocratic parental approach has linked to parents that priorities rule-following as well as attested and demand that commands be followed blindly in an unfriendly setting (Baumrind et.al, 2010). Furthermore, authoritarian parents exercise tight control over their children, restrict open communication, and display low levels of trust and connection with them (Maccoby & Martin, 1983) More specifically, it was discovered that of autocratic-specific, persistent energetic-control behaviors, oral antagonism as well as mental jurisdiction was more harmful (Baumrind et.al, 2010). It has been observed that adolescents from the majority of Caucasian authoritarian homes have low public expertise, little standards for confidence as well as significant standards to despair (Milevsky et.al, 2007). However, depending on the neighborhoods where the adolescent lives, this parenting approach has different results. In the section on parenting's variables and environmental influences, these findings will be covered in more detail.

1.6. The permissive parenting approaches

High degrees of responsiveness and low levels of demandingness are traits of permissive parenting. When making decisions for the family, permissive parents consult with the adolescent and act positively toward the adolescent's inclinations, desires, and actions. Additionally, permissive parents don't enforce regulations, refrain from using behavioral punishments, and have low expectations for their children's behaviour (Baumrind et.al, 2010). It's interesting to note that once their kids reached adolescence, permissive parents dramatically reduced their supervision while these kids increased the amount of externalizing conduct (Luyckx et.al, 2011). When compete with kids from trustful or automatic households, youngsters from liberal backgrounds illustrated more instances of drug addiction as well as educational absentees, less engaged and positively inclined toward learning (Querido et.al, 2002). Additionally, teenagers' little confidence as well as external encouragement focused are linked of liberal guardian (Ginsburg & Bronstein, 1993).

1.7. Significance

This study holds significance in both theoretical and practical dimensions, particularly in understanding the role of parents in fostering curiosity and exploration in their children. Parenting styles, ranging from supportive encouragement to overcontrolling tendencies, influence the development of these traits, which can have lasting effects into adulthood. By examining how different parenting styles impact curiosity and exploration, the study aims to provide insights for parents on cultivating these qualities in their children, contributing to their success. Additionally, the findings have implications for government initiatives, as a population with a curious and exploratory nature may achieve more, positively representing the country on the international stage. The study is also valuable for counselors, offering guidance on how to address issues related to curiosity and exploration in children based on the parents' behavior. Ultimately, this research seeks to uncover effective parenting approaches that nurture curiosity and exploration for the benefit of both individual development and broader societal outcomes.

1.8. Research Objectives

- To identify the correlation between trustful parental approach, curiosity as well as exploration among university adults of Multan.
- To identify correlation between autocratic parental approach, curiosity as well as exploration among university adults of Multan.
- To identify correlation between liberal parental approach, curiosity as well as exploration among university adults of Multan.
- Determining role for demographics in correlation between Perceived parenting Styles, curiosity and exploration among university students of Multan.

1.9. Research Hypothesis

- There will be correlation between trustful parental approach, curiosity as well as exploration among university adults of Multan.
- There will be correlation between autocratic parental approach, curiosity as well as exploration among university adults of Multan.
- There will be no relationship between permissive parental approach, curiosity as well as exploration among university students of Multan.
- There will be role of demographics in correlation Perceived parenting Styles, curiosity and exploration among university students of Multan.

2. Literature Review

The students face problems because of the imbalance of two types of concepts which play an important role in the enhancement of memory and learning. These two concepts are 1. Curiosity and 2. Exploration. The parents' role is important in the establishment of these concepts. In parents due to lack of awareness about beneficial role of these terms in their children. They may inhibit or decrease the level of curiosity and exploration among children. Parents education can also matter in this case. This inhibition or low-level cause hurdles in the achievement of children. This behavior can also cause problems in their adulthood life. So, this study is conducted to overcome the students' problems because of their parents' behavior that affect their curiosity and exploration level. The aim of the present literature is to focus on the "Association between Perceived Parenting Styles, Curiosity and exploration". It will also focus on gender and age differences in Curiosity and exploration.

2.1. Factors

2.1.1. Biological factors

Thomas G Reio et al., 2020 investigated a research. The aim of that have a look at turned into to explore the connection among curiosity and properly-being in 18- to 29-yr-vintage people. In a group of 378 operating rising adults, a survey battery was administered to measure cognitive and sensory interest, finished emerging adulthood, and-being, as well as pick out theoretically applicable demographic variables (e.G., gender, ethnicity, profits). Moderated hierarchical regression evaluation revealed that some of the finished adulthood criteria, achieving family capability, role transition, and biological transition had high-quality consequences on properly-being, even as accomplishing independence, interdependence, and norm compliance verified a null impact. Cognitive and sensory curiosity and their interaction additionally had a effective impact on properly-being. The contributions to emerging adulthood and interest theories and their empirical and realistic implications are discussed.

2.1.2. Situational/ Psychological factors

In 2019, Qi Huang et al., (2019) investigated a study. Separation adjustment has globally more applications for the reduction to Crona 2019, tension, social space or infantile autism, can reduce person's interest of getting social knowledge or in this way could bad accomplishment of his social interest, Qi Hang explored research of year two thousand nineteen. With the help of action pattern or questionnaire, 2 type of researches had investigated, in 1st research N is Five hundred seventy, while in research 2 N is Five hundred and one. The study investigated significant +ve association among Epistemic interested further trait interest. Trait tension has -ve association to trait interest. State tension has +ve association to infantile autistic ability. Special interest had 3 types (Epistemic interest, perceiving interest or social interest) had positive association to trait interest. Second type of research showed less association between 3 types of special interest. Research findings showed social spacing further infantile autism has -ve conclusion of social interest with interest.

2.1.3. Personality Factors

According to Dev (2014) explore in their study the Huge Five Variables of character and travel interest, observational proof is inadequate. This study inspected the connection between these two builds inside the travel industry settings. A study methodology was utilized in information assortment that yielded 360 usable polls. Discoveries demonstrate receptiveness to experience to affect

the interest-type travel interest, while neuroticism and suitability to emphatically affect the hardship type travel interest. Extraversion and uprightness affected both of the two sorts of interest. The review confirms the pertinence of receptiveness to experience, neuroticism, and suitability in connecting with movement interest. Objective advertisers can subsequently involve travel interest in their promoting correspondences to take care of various characters.

Joyce M Alexander (2012) defined in their study and explore the relations between parental reports of kids' inclinations connected with science and open doors for science learning were analyzed longitudinally in 192 youngsters between ages 4 and 7 years. Science interests were followed during 1-year periods (ages 4-5, 5-6, and 6-7) and were more pervasive among young men, especially before age 6 years. Distinctions in sexual orientation arose as far as frequencies of chances for science picking up during every one of the 3 years. Longitudinal way investigations tried relations between kids' science advantages and their chances for science learning. Research information proposed that early science interests' serious areas of strength for were of later chances to participate in casual science learning, while the contrary example (early open doors anticipating later science interests) was not found. Little kids' communicated science intrigues drove guardians to hence increment open doors for science picking up during the next year. In spite of the fact that young men followed this example from the get-go in the review, over the long run young men got comparative degrees of science open doors no matter what their advantage. Bases for distinctions in sexual orientation in early science interests and suggestions for later science learning in school were thought of.

Fatimah et al (2014) carried out a take a look at on the Investigation of the Relation among Parenting Styles and the Curiosity and Creativity in Students. It is plain that personality, behavioral and cognitive characteristics of human are stricken by mother and father and it appears that evidently parenting patterns that mother and father use in rearing their youngsters affect their personality and cognitive traits. Parental styles include numerous factors of infant rearing, values and rearing practice behavioral of mother and father which have vast role in boom and rearing of children. The studies show that numerous parenting or toddler rearing techniques have one-of-a-kind outcomes on the self-esteem of students. In the own family, mother is the primary important person whom the kid associates, so the aim of the existing observe is to investigate the relation between mothers' parenting attitudes with creativity and curiosity of students. This study uses submit-event studies plan

Joyce Alexander (2012) explores in their study to investigate the relations between parental reports of children's interests related to science and opportunities for science learning were examined longitudinally in 192 children between ages 4 and 7 years. Science interests were tracked during 1-year periods (ages 4-5, 5-6, and 6-7) and were more prevalent among boys, particularly prior to age 6 years. Gender differences did emerge in terms of frequencies of opportunities for science learning during all 3 years. Longitudinal path analyses tested relations between children's science interests and their opportunities for science learning. Research data suggested that early science interests were strong predictors of later opportunities to engage in informal science learning, whereas the opposite pattern (early opportunities predicting later science interests) was not found. Young girls' expressed science interests led parents to subsequently increase opportunities for science learning during the following year. Although boys followed this pattern early in the study, over time boys received similar levels of science opportunities regardless of their interest. Bases for gender differences in early science interests and implications for later science learning in school were considered.

According to the Ghulam et al. (2022), their study delved into the intricate dynamics between workplace culture and diverse facets of interest among lecturers in Pakistani universities. The investigation, centered on average workload, lecturer generativity, and metrics such as entertainment, stress tolerance, active sensing, and public interest, targeted lecturers working in institutions within the Babul-Islam region. Utilizing a 5-point summative questionnaire administered to 350 lecturers and employing the Sharp Partial Least Square program (version 3.2.8) for analysis, the results indicated a noteworthy correlation between interest and generativity among lecturers. Furthermore, the study uncovered a direct association between lecturer generativity and public interest, stress tolerance, and entertainment, while no discernible link was identified with poverty responsiveness. The findings underscored the pivotal role of workplace culture across various interest dimensions, encompassing cheerful investigation, stress forbearance, and public interest, in conjunction with lecturers' generativity and poverty responsiveness. The author also expounded on organizational applications and highlighted potential barriers arising from these revelations.

According to the Erum (2021) study, an exploration was undertaken in response to the escalating intricacies and competitiveness within the contemporary business landscape. Within this context, the paramount importance of recruiting individual's adept at managing challenging tasks was underscored. Focusing on cognitive interest, recognized for its positive impact on job productivity through continuous learning and intellectual development, the study delved into the association between cognitive interest and perceived job effectiveness. Through an examination of 252 employees across diverse organizations in Pakistan, the results substantiated the anticipated positive relationship between cognitive interest and perceived job effectiveness. Notably, the study revealed that this relationship was fully mediated by success striving. Furthermore, the study unveiled that the exploitation climate played a mediating role in the association between cognitive interest and job effectiveness through success striving, with the strength of this relationship diminishing as the overload climate intensified. The study's findings extend to practical applications in areas such as contract training, job environments, and training and development.

2.2. Rationale of the study

The rationale for this study lies in the pivotal role played by interest and investigation in individual success across various life domains. Interest, intertwined with motivation and drive, is characterized by its affective, excitement, and expressive components. It is linked to intelligence and motivation, fostering a desire to be informed and expanding mental capacities. Elevated state interest is associated with improved memory, while business-related interest correlates with higher levels of innovation, job satisfaction, and work engagement. In education, greater interest is linked to superior academic performance. Notably, curiosity is a widely adopted trait, and investigation behaviors significantly influence the acquisition of information and the filling of knowledge gaps. Specific brain networks associated with investigation behaviors enhance learning, emphasizing the importance of these concepts in human life. As disturbances in their levels can lead to problems, this study aims to address gaps in understanding and contribute to the broader comprehension of the significance of interest and investigation in human functioning.

3. Method

3.1. Research Design

The research plan was executed in a single phase, employing a correlational research method to measure the perceived correlation between parenting styles, curiosity, and exploration among university students in Multan. The sampling strategy utilized a simple indiscriminate representation method, and the sample size of 171 young adults (86 males, 85 females) with an age range of 16 to 32 was determined through G Power analysis. The selection criteria for the young adults were carefully considered, both inclusive and exclusive, with attention to specific properties deemed relevant for obtaining optimal findings for the research study. This approach aims to uncover correlations between perceived parenting styles and the development of curiosity and exploration among university students, providing valuable insights into the dynamics of these factors.

The inclusion criteria for this study encompassed data collection from young adult students, aged 16 to 32, attending government and private universities in Multan. Both male and female participants were included, with an emphasis on individuals possessing better literacy skills and educational backgrounds, ensuring their ability to comprehend the research instruments and provide informed consent. Conversely, exclusion criteria involved the omission of data from young adult students in universities located outside of Multan, individuals beyond the specified age range, teachers, and those with lower levels of education. This selective approach aimed to maintain a focused and relevant participant group for the study, facilitating a nuanced exploration of the perceived correlation between parenting styles, curiosity, and exploration among university students in Multan.

3.2. Assessment Measures

Self-report estimates that gave best operationalization of the review factors concurring the hypothetical foundation was utilized in the current review. Measures remembered for the current review was not have any multifaceted approval issues. It was additionally viewed as that these chose measures were having great psychometric properties. The explanations about the measure such as below:

1-Curiosity and Exploration inventory-II (CEI-II)

2- Perceived parenting style scale (PPSS)

3.3. Curiosity and Exploration Inventory-II

Curiosity and Exploration Inventory-II is developed by Kashdan et al, (2009). This is the personal-describe tool, which is utilized to evaluate individual in the acknowledgment, pursuit, and joining of innovative as well as challenging experiences alongside information. It is a 10-item scale with 5-point Likert response format options, 1= Very slightly or not at all, 2= A little, 3= Moderately, 4= Extremely and a structure of two factors: (1) Stretching (five items), (2) Embracing (five items). Scoring is obtained by sum up items for factors. The reliability for scale of exploration was $\alpha = .80$ and for curiosity $\alpha = .78$.

3.4. Perceived Parenting Style Scale (PPSS)

The Apparent Nurturing Style Scale created by Divya and Manikandan (2013) measure the view of the youngsters about their parent's way of behaving. It comprises of three sub-scales, for example, 1. Dictator Style: high standards, discipline, limitations, little solace (ten things), 2. Definitive Style: open correspondence among parent and kid, giving clear rules, (ten things) and 3. Tolerant Style: not many cutoff points forced, no standard or rules, invest less energy with kids (ten things). It comprises of 30 things in which reactions were evoked in a five-point Likert scale, 1= Never, 2= Seldom, 3= A few times, 4= Frequently, 5= Consistently. To figure out the unwavering quality of the scale Cronbach Alpha coefficient was processed for each style and it was observed that the definitive style is having an Alpha coefficient of 0.79, tyrant 0.81 and lenient 0.86. Every one of the styles of the apparent nurturing style scale have an adequate degree of dependability. The creators guarantee that the scale has face legitimacy.

3.5. Procedure

For the purpose of data collection, various universities in Multan were selected as potential sources of data. Participants were purposively approached, and those meeting the inclusion criteria were recruited into the study. The research goals were communicated to prospective participants, and a Performa was obtained from those who expressed willingness to take part in the research. This sequential process ensured a targeted and purposeful selection of participants, aligning with the study's objectives and inclusion criteria.

4. Results

Findings indicated so as authoritative PS have positive correlation with stretching as well as embracing that is .510 and .317 respectively. Authoritarian PS have significant relationship with Permissive PS and embracing that is .522 and .212 respectively. Permissive PS have no relationship with stretching and embracing.

Results show so as ($t = -1.221$, $t = .379$) T. St and T. Em respectively. The results of table show as there is not significant gender difference between boys and girls.

R value in this study is .056, which means that age has 5% impact on student's curiosity and exploration level.

5. Discussion

This research aims to explore the association between Perceived Parenting Style, curiosity, and exploration among university students in Multan. The first hypothesis posits a correlation between a trustful parental approach and curiosity, as well as exploration among Multan's university students, a correlation supported by the results presented in Table 4.1 and consistent with existing literature (Crockett, 1995). The second hypothesis suggests a correlation between an autocratic parental approach and curiosity, as well as exploration, but the results in Table 4.1 do not support this claim. Authoritarian parenting style is found to be positively correlated with curiosity and unrelated to exploration, as indicated by previous research (Jabaghourian et al., 2014). The third hypothesis proposes a correlation between a liberal parental approach and curiosity, as well as exploration among university students in Multan. The results in Table 4.1 support this hypothesis, aligning with prior research findings (Rivers et al., 2012). The fourth hypothesis explores the role of demographics (gender differences and age impact) in the relationship between Perceived Parenting Styles, curiosity, and exploration among Multan's university students. The results in Table 4.2 reveal no significant gender

differentiation in curiosity and exploration levels among male and female students, in line with the findings of (Robert et al. 2003). Additionally, Table 4.3 demonstrates that age has a minimal impact on students' curiosity and exploration levels, as suggested by (Jessie et al. 2015).

Table 1: Correlation is found out between authoritative, authoritarian, permissive, stretching and embracing through Pearson Correlation or 2-tailedway

	Authoritative PS	Authoritarian PS	Permissive PS	Stretching	Embracing
Authoritative PS					
Pearson Correlation	1	-0.43	-.202**	.510**	.317**
Authoritarian PS					
Pearson Correlation	-0.43	1	.522**	.032	.212**
Permissive PS					
Pearson Correlation	-.202	.522**	1	-.080	.134
Stretching					
Pearson Correlation	.510**	-.032	.080	1	.437**
Embracing					
Pearson Correlation	.317**	.212**	.134	.437**	1

Note M=Mean, Std. Deviation

Table 2: T test is used for gender group to identify M and Std. Deviation of males and females

Gender	N	Mean	Std. Deviation	Std. Error	Sig.	T	95% Confidence interval of difference	Lower	Upper
T. St									
Male	85	16.3765	4.52763	.49109	.240	-1.221	-2.30091		.54223
Female	86	17.2558	4.88018	.5624					
T. Em									
Male	85	15.3412	3.92657	.42590	.165	.379	-.99665		1.46970
Female	86	15.1047	4.2343	.45661					

Note M=Mean, Std. Deviation,

Table 3: The effect of age on curiosity and exploration is found by applying regression

Specimen	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	Beta	Std. Error			
Stable	2.447	.768		3.184	.002
Age	.027	.037	.056	.729	.467
R	.056				
R. Square	.003				
Adjusted R. Square	-.003				
F	.531				

6. Conclusion

In conclusion, this study investigated the intricate relationship between Perceived Parenting Style, curiosity, and exploration among university students in Multan. The findings revealed a significant correlation between a trustful parental approach and heightened levels of curiosity and exploration, aligning with existing literature. Conversely, the expected correlation between an autocratic parental approach and these cognitive dimensions was not supported, as authoritarian parenting style demonstrated a positive correlation with curiosity and no relationship with exploration. The study also confirmed a positive correlation between a liberal parental approach and increased levels of curiosity and exploration. Furthermore, the examination of demographic factors, including gender differences and age impact, demonstrated that gender did not significantly differentiate curiosity and exploration levels

among male and female students, while age exhibited minimal influence on these cognitive dimensions. This study contributes valuable insights to the understanding of parenting styles and their impact on cognitive development in university students, offering practical implications for parents, educators, and policymakers in fostering positive traits among the youth.

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