



ORIGINAL CONTRIBUTION

Exploring the impact of shared cognitive and emotional factors in career decision-making among adolescents through qualitative inquiry

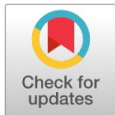
Fatimah Khakwani ¹, Fatima Khurram ^{2*}, Samar Fahd ³

^{1, 2, 3} PhD scholar, Department of Applied Psychology, Islamia University of Bahawalpur, Bahawalpur, Pakistan

Abstract— Along with other skills, an adolescent need to develop adequate decision-making skills as several important decisions that will have an impact on their future will be taken during this period. One such important decision that needs to be taken is regarding academic and career choices. Most of these choices are influenced by cognitive factors or emotional factors. Keeping in view the prior research gaps, the aim of this paper is to explore the shared cognitive and emotional factors influencing adolescents career choices living in small city. In depth interviews were taken from ten higher secondary school students studying at different colleges in Multan through a convenient sampling technique. Data were analyzed with the help of thematic analysis. Semantic and inductive approach was used to generate themes. Results of the study revealed the autonomy in career choice, stigmas attached with the career choice, individual factors in career choice, and impact of the program on mental and emotional health. It was observed that male students were given a choice in terms of their career as compared to females. Also, male students were more confident and stress-lived as they opted for their desired careers. On the contrary female students feel depressed, helpless and reported emotional and mental health issues due to the unavailability of career choices and forced career on them. The study helped in understanding the impact of program of the study on students cognitive and emotional health. It can be implied from the present study that gender differences still prevail in our education system. Due to scarcity of career options available and the pressure to get admission from the parents in prestigious institutes are making adolescents compromise on their mental and emotional health. Therefore, a career guidance plan should be introduced in education policy for adolescents' mental health. Also, it was also the first study which supported the concept of shared cognitive and emotional experiences.

Index Terms— Shared cognitive, Emotional, Factors, Adolescents, Career decision making

Received: 8 May 2022; **Accepted:** 20 July 2022; **Published:** 21 September 2022



Introduction

Choosing a profession or a job is first introduced to children when they pretend to be doctors, teachers, or other professions they observe in their environment. Children frequently must respond to queries about what they hope to accomplish in life. Even though this process begins early, true planning and decision-making begin in adolescence, which is the age range of 13 to 18 years. It is a crucial developmental stage marked by several biological and psychological changes that necessitate the effective completion of tasks, including achieving identity. They struggle to strike a balance between submission and independence during this period. A teenager must acquire good decision-making abilities in addition to other talents because this is a time when many crucial choices that will affect their future must be made.

*Email: fatima.khurram@iub.edu.pk

Most young adults are quite concerned about their future careers and are well aware of the importance of making career decisions. Each person must consider their personal preferences, interests, capabilities, and skills when trying to make a smart job decision (Judge et al., 2010; Ng & Feldman, 2010). Outside variables like work market fluctuations and career prospects can also impact. All these challenges may lead to uncertainty and difficulty making career decisions (Levin & Gati, 2015).

Therefore, research is required to comprehend the decision-making process involved in choosing a career for young people and to help those who are having trouble. In the field of career counseling, an individual's emotional condition may hold the key to determining the best career intervention strategy (Hirschi & Freund, 2014).

According to research on careers, counseling and emotions are important factors when choosing a career (Di Fabio & Blustein, 2010). Young, Valach, and Collin (2002) proposed the action theory of career development, which maintains that daily activities shape careers (e.g., use of language in conversations with others). This idea holds that emotion is a part of people's internal processes and is connected to wants, objectives, plans, initiatives, and purposes.

According to Pham (2007), integral emotional states (those "elicited by perceived or imagined qualities of the target item) have been proven to have a variety of effects on decision-making. Most importantly, it has been discovered that these feelings are often substituted for the values of the choices made during the decision-making process.

People frequently swap their feelings about a certain outcome for a more considered, rational value when emotions are at their highest (Gilovich, Griffin, & Kahneman, 2002). Those that feel good must be desirable, and things that feel awful must be undesirable, as Pham states on page 161. The function of some predicted emotions in decision-making has also been explained using this replacement of a feeling for an outcome value (Bagozzi, Dholakia, & Basuroy, 2003).

It has been postulated that the anticipated emotions associated with each possible outcome make a choice either more or less desirable (such as when anticipating joy or anticipating sadness (Ibuka, Vietri, Chapman, & Galvani, 2014). Additionally, the desirability of these predicted feelings is related to the emotional intentions or reasons underlying the decision-making process (Bagozzi, Dholakia, & Basuroy, 2003).

According to the literature on cognitive decision making, perceptions of probability and risk are also significantly impacted by emotion. According to Loewenstein et al. (2001), people rely on discrete mental representations of alternatives when making affective decisions in uncertain situations. These discrete representations do not include the ambiguous areas that probability represents.

Yet the previous empirical study has yet to consider in tandem the respective roles of cognitive, emotional, and interactional dynamics in successful interdisciplinary collaborations. The present article attempts to meet this challenge. Specifically, this article aims to present a new theoretical model of difficulties in career decision-making among higher secondary school students in Pakistan.

Shared cognitive and emotional factors

From a different perspective, neuroscientists contend that through selective attention and memory storage in the brain, emotions provide an orienting function in cognitive activities (Immordino-Yang & Fischer, 2009).

Thagard and Kroon (2008) defined consensus-building in a group as "the result of at least partial convergence of beliefs and emotional values," describing the involvement of emotions beyond individual cognition (p. 66). In their concept, emotional consensus building—a process through which group members come to share positive and negative feelings about various acts and goals—complements cognitive consensus.

In his study of interdisciplinary funding panels, Lamont (2009) found analogous calibration processes and made the following claim: "Evaluation is a process that is deeply emotional and interactional. Emotions are an essential dimension of academic selves that shape the work of interdisciplinary panels." It is rooted in culture and influenced by the panellists' "social identities," or their perceptions of themselves and others (Lamont, 2012).

Most decision-making models now propose that two processing channels affect human choice-making (Cameron, & Leventhal, 2003) to account for the discovery that emotion plays a role in processes previously assumed to be exclusively cognitive in character. All share the idea that one stream reflects rule-based, rational cognition and the other, a more intuitive, emotion-based kind of reasoning, despite differences in description and nomenclature. Additionally, many hypotheses contend that these two streams interact somehow (Strack, & Deutsch, 2004).

Rationale of the study

The major aim of the research is to highlight the shared cognitive and emotional factors in career decision making. There is an existing gap in both these domains. Most of the research done in career decision making is either done on cognitive factors or on emotional factors. There is no such evidence of a collaborative study on these two domains. Both emotional and underlying cognitive processes play an important role in the decision-making process. As it helps an individual to explore their participation, belonging and status.

Literature Review

According to Olson (2014), choosing a discipline is a big decision and takes time rather than being a quick incident. Vocational choices and interests do not suddenly manifest during adolescence; rather, they do so as a result of the growth process. Many academics have compiled the primary variables that can significantly affect the choice of occupational categories.

For instance, Mudhovozi and Chireshe (2012) noted that the interest in the job, personal skills, personality qualities, security, stability, and prestige appeared to have a secondary part in influencing the choice of a profession. These variables are the most frequently cited ones. In general, students are still determining what subjects they should choose, and they tend to favor subjects they perceive to be simple or entertaining.

Most students need to comprehend the connection between their course choices and their future business, interest, and physical fitness destinations; thus, many need to comprehend the association between education and career entry (Woasey, 2015). It is stressed that students should choose and be put in different occupational training programs based on their interests, aptitudes, and abilities for the requirements of that occupation (Liu & Hou, 2018).

Brown and Lent's (2012) career construction theory highlights personal constructivism and social constructionism. It emphasizes life themes and professional self-concepts and aims to comprehend career growth as a psychological activity requiring a synthesis of the self and society.

Many ideas suggest that family influences how people choose their careers. The impact of family relationships on career growth is discussed using the family systems theory and an interactional approach. Additionally, the role of the parent-child connection on professional development has been studied using the attachment theory (Bergen, 2006). Vondracek, Lerner, and Schulenberg's developmental-contextual theory (Bakshi et al., 2012) discuss the constant bi-directional interaction between an individual and his context, which includes family. They also highlight the role of personal factors in career choice-making.

Numerous prior literary works have demonstrated that students choose their careers based on a variety of criteria, including social status, workload, prestige, personal and cultural beliefs, job expectations, family background, advancement chances, and monetary benefits (Agarwala, 2008). Prior research indicated that factors such as social support, knowledge, and money (Najar & Yousuf, 2019), residence, and educational accomplishment (Igere, 2017; Shahzad et al., 2014) had an impact on graduates' employment decisions.

Career decisions among graduates are influenced by interpersonal, internal, external, institutional, and socio-demographic factors, in accordance with the model of job choice developed by Purohit et al. (2020). Additionally, a study by Karaca et al. (2016) found that a social worker's career choice may be influenced by family influence, personal preference, personality structure, income potential, job security, and career opportunities.

According to Alyafei (2018), social work students' career choices were impacted by factors such as demographics, societal change, families, and personal experiences. According to Couturier et al. findings(2021), gender, psychological trauma experience, role model influence, values, and personal motives were all variables in university students' decision to pursue a profession in social work. Parents, siblings, parents' families, cousins, acquaintances, and lecturers can all have an impact on interpersonal relationships (Gokuladas, 2010). Previous studies (Sultana & Mahmud, 2020) have discovered the influence of acquaintance, friends, and family on graduate employment choice.

Additionally, research has shown that teachers have a significant impact on students' decision-making. In graduates' employment decisions, teachers have been demonstrated to have a considerable impact (Abbasi & Sarwat, 2014; Aycan & Fikret-Pasa, 2003). Falaye and Adams (2008) claim that some teachers assist their pupils to select careers that match their skills and interests. A favorable correlation between interpersonal characteristics and profession choice was found among 360 undergraduate students in Ghana studying the humanities (sociology, social work, psychology, business, and political science) (Woasey, 2015).

Internal factors emphasize the interests, work environment, possibilities for advancement, and other personal qualities of graduates (Purohit et al., 2020); values, personal interests, and personality (Byrne, 2015). Personal interest, which is connected to intrinsic drive and satisfaction, is seen to be the most important psychological factor influencing profession choice among individual factors (Krapp & Prenzel, 2011). Results from earlier studies demonstrated that among undergraduate students, personal interest factors positively correlated with and predicted career choice (Humayon et al., 2018). The most important criteria influencing students' job decisions are their personal interests (Anojan & Nimalathasan, 2013).

The perceptions of students' skills, abilities, and competencies have also been noted as a key factor in choosing the right vocation (Agarwala, 2008). External variables include employee benefits, industry changes, and the employment prospects, incomes, and social status of graduating students (Uyar et al., 2011). Numerous prior studies mentioned financial remuneration as the most affected factor for the graduate career choice (Agarwala, 2008; Gokuladas, 2010).

Methodology

Research design

To explore the cognitive and emotional factors in career decision-making in-depth interviews were taken from the potential participants. An in-depth semi structured interview guide comprising of six broad questions were developed in English language. The questions were aided with probes like how and what, based on the theoretical model of cognitive and emotional factors. Additional field notes were also utilized to present the researchers personal reflections about the data collection procedure.

Sample and sampling strategy

Convenient sampling techniques were used for the selection of participants. The sample consisted of 10 adolescents, six females and four males' students studying in different HSSC programs. The participants from different programs are as follows.

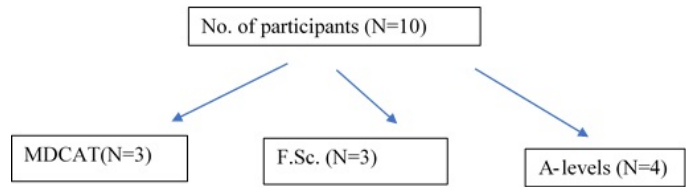


Fig. 1. Demographics

Table I
Demographic characteristics of the participants

Sr. No	Age	Gender	Program of Study	Major Subjects	Family System	Parents Occupation	Place of Living
1.	19	Female	MDCAT	Medical	Joint	father marine engineer, mother housewife	Urban
2.	19	Female	MDCAT	Medical	Nuclear	mother principal, father retired police officer	Urban
3.	19	Female	MDCAT	Medical	Nuclear	Mother housewife, father Businessman	Urban
4.	17	Male	A-levels	Math, physics, computer science	Joint	Mother Doctor, father land lord	Urban
5.	18	Male	A-levels	Business economics, computer	Nuclear	Mother housewife, father Businessman	Urban
6.	17	Male	A-levels	Biology, Chemistry, physics.	Nuclear	Father director board of education, mother house wife	Urban
7.	17	Male	A-levels	Law	Joint	Mother house wife, father lawyer	Urban
8.	17	Female	F.Sc.	Bio, chem, phy	Nuclear	Father	Urban
9.	17	Female	F.Sc.	Bio, chem, phy	Nuclear		Urban
10.	17	Female	F.Sc.	Bio, chem, phy	Nuclear		Urban

Procedure

A formal permission was taken from the college authorities for the interviews from the students. College administration was debriefed about the nature of the research. Also, interview questions were shown to the administration. After that potential participants were selected for the data collection. Participants were also debriefed about the nature of the research. Written consent was taken from them for recording their audio interviews. They were assured about the confidentiality of the research, free will participation and the rights of the participants to withdraw from the research. None of the participants was compensated or paid for the research.

Interviews were taken from each participant separately. Demographic characteristics of the participants were recorded on a separate sheet. Rapport and trust building was established by presenting orally a comprehensive statement stating the goals and implications of the study. Once enough rapport and comfort were built, students were encouraged to share their experiences with ease. Probing questions were avoided for the authenticity of data. After reading the relevant literature about the phenomena under investigation the researcher developed a hypothetical depiction of the phenomena under investigation and stated reflections explicitly. Seidman (2006) suggested using field notes and active listening to preserve the integrity of epoch in transcendental phenomenology because the process of epoch began with the interview. By concentrating on the nonverbal cues made by the participants, active listening was performed, and the participants' inner voices were investigated by asking them to explain the significance of their experiences. Second, field notes about the key aspects of the interview process were created after each interview. Using field notes and audio recordings together allowed researchers to learn more about the phenomenon's deeper layers (Lofland & Lofland. 1999).

Data Analysis

For the modification of data analysis, Braun and Clarke (2013) procedure of thematic analysis was used for the following reasons. Firstly, the researcher intended to explore each participant structural (how) and textural (what) experiences related to the career decision making. Secondly, for identifying, analyzing, and reporting patterns (themes) within the data for checking the credibility of data. The multiple steps identified by Braun and Clarke (2013) were diligently followed throughout the data analysis procedure such as identifying themes through inductive reduction, generating codes, searching for themes, reviewing themes, defining and naming them and uncovering the essences of factors. All these steps were done to ensure the validity and reliability of the data collection and analysis and to ensure that there was no researcher bias in the analysis.

Familiarization with the data

Braun and Clarke (2013) stated that the most important step in thematic analysis is familiarizing yourself with the data. For this process, the data was reviewed by the researcher again and again. Also, data was transcribed for the familiarity with the data.

Inductive analysis

The major aim of inductive analysis was to link the identified themes with the specific questions asked from the participants. The researcher did inductive analysis to avoid the data to fit into the researcher's analytic preconceptions and to avoid coding data trying to fit into pre-existing coding frame.

Inductive analysis was carried out through various steps. In the first step, themes were generated at the semantic level. For this, the transcript was read thoroughly several times to develop an overall understanding of the data. Overall, 205 statements were listed down, serving as a horizon to understand the phenomena under investigation.

In the next step, all statements were clustered into meaning units. This was done by deleting the repetitive and overlapping statements. In the third step, all the meaning units were then thoroughly analyzed and sorted into coding units and core themes reflecting the participants views. Furthermore, core themes were also verified through field notes, transcribed audio tapes. The core themes are elaborated as follow

Autonomy in career decision making

The first theme is autonomy of decision making of shared cognitive and emotional factors in career decision making. It unfolds important meaning units such as independency and confidence in decision making. Also, it highlights the pressure and burden of decision making. Independency and confidence refer to the freedom which one feels making choice for him/herself. It was seen that male students reported that they were provided autonomy for their decision regarding their career choices. As said by most of the students

"Feels like I am grown up who decides for himself". "It feels like I am the owner of my own decision".

Also, in their view, if career was not of your choice and is forced onto you lose interest with the passage of time. It becomes difficult to pursue it further. Also, it affects grades and study negatively. But along with confidence and independency male students reported the pressure of decision making. For them decision making on one hand makes them feel confident but also it is a form of pressure. As it is a form of pressure to make the right decision for oneself. As reported by one of the students "Makes me feel scared as all responsibility is on me".

On the contrary when asked from female students they mentioned that they have not been given the liberty of career decision making. Their career was decided by their parents. As in the words of one of the students "Haven't felt liberty of decision making".

This difference of opinion between male and female's student regarding career choice was observed throughout the interview.

Stigmas attached with career choice

The autonomy in career decision making determined the Stigmas attached with the career choice including gender related norms, societal perception and program of the study. From the interviews it was sensed that female students were seen stressed and frustrated due to lack of choices given to them in terms of career choice. According to one student, "As there is no other option available for me and I'm forced to choose this only program and pursue as a career it makes me nervous and anxious".

Furthermore, when asked about other preferred profession options from them most of the female participants they were ignorant about any other options. Most of them responded with frustration due to the availability of only one preferred career choice, i.e., medical. Also, their decision was already pre decided by their families. They weren't asked or informed about any other choice available. As said by most of them

"Medical is considered as most appropriate profession for girls as compared to other fields."

"I felt that especially being a girl less opportunities are available or given to girls to choose or decide for themselves in terms of career decision making."

Societal perception regarding girls' education and the program of the study was also reported by the students. All the female students complained that only medical or teaching profession was considered suitable as a profession for girls. All their educational choices should be made according to these professions. But for most of the family's medical was considered as the first option. Teaching was secondary if in case they don't get admission in medical college.

Also, a program of the study was chosen by families keeping in people's view. Male students who were studying A-levels reported that of the reason they opted for this program was due to society's views regarding to A-levels. For people A-levels is considered more respectable and professional than F.sc. as said by one of them

"will say some pressure was faced due to societal views because from the family that I held, there is some pressure that a level is considered superior to the F.sc."

It was also observed that keeping in view the future opportunities and goals, students selected their program of study. Students who were studying A-levels were mostly planning for abroad studies. Their aim was to pursue further degrees from international universities. Therefore, in their opinion, their program was the only choice which provides them with multiple opportunities and choices. As said by one of them "choose A-levels because there is a I felt that there was more exposure in A-levels and that I could get into better universities through A-levels and I could even have the option to go abroad".

Individual factor in career choice

Individual factor was reported by some students. Passion was one of the major reasons for opting a career. Most of the girls reported that they wanted to be doctor since childhood

"I always wanted to become a doctor as I dreamed about it".

Most of them were passionate about their choice. It was what they wanted to be from the start. They also did research for other options, but at the end, this was what they wanted to do. So, few of them opted for their dream careers.

Impact of program on mental and emotional health

When queried about the selected program impact on their mental and emotional health students responded in two categories, i.e., positive and negative. For some students, the pressure of studies affected them positively. It keeps them motivated. The environment in which they are studying, and their teachers played a key role in this motivation. As said by one of the students "the teachers and the people around me are very supportive and very positive."

Also, this has helped them to believe in themselves and their abilities. It keeps them to work hard in achieving their goals. In words of a student

"It makes me feel a lot, a lot motivated because I know that I have to be on the top."

However, for some the program affected negatively. The pressure of competition, to get good grades, the choice of subjects all makes them feel anxious and restless.

"Makes me feel a bit stressed because knowing the competition that medicine has in Pakistan, it makes me stressed."

Also, for female students as this was the only option given to them, so they have to achieve success in this field. This pressure of the only available option made them feel depressed and the stress of getting through this program affected me with emotional problems. As quoted by most of them

"This field has affected badly my emotional and mental health."

"I got depression.... Currently I am taking anti-depressants due to the stress of getting admission."

"As there is no other option available for me and I'm forced to choose this only program and pursue it as a career, it makes me nervous and anxious knowing the scarcity of seats."

Discussion

This study investigated the shared cognitive and emotional factors in career decision making in higher secondary school students. The analysis of the data highlighted the autonomy of choice in career decision making, stigmas attached with the career choice, individual factors in career choice, and impact of the program on mental and emotional health.

The autonomy in career choice revealed that when given a choice in decisions to adolescents it makes them feel independent and motivated. They feel like mature, responsible adults. Various studies have demonstrated positive outcomes of acting from autonomous

sources of action (Ryan & Deci, 2017). Accordingly, Katz, Cohen, Green-Cohen, and Morsiano's (2018) research revealed that autonomous choices have a variety of motivational and emotional effects. Numerous SDT research have demonstrated that when people act independently, they profoundly comprehend and internalize the purpose and significance of the activity. In turn, this internalization leads to more fulfilling engagement (Jang, Kim, & Reeve, 2016), higher accomplishments (Taylor et al., 2014), improved self-perceptions of ability (Katz, Eilott, & Nevo, 2014), better decision fulfilment (Pesch et al., 2016), and better wellbeing (Ryan, Huta, & Deci, 2013).

Stigmas attached with the career choice highlights the one of the basic gender stigmata associated with the female education. Girls' education is still a question for most of the families. They are not given or even asked before making any choice for them. Being in a conservative culture, females are provided with a limited number of choices due to the respect stigma attached with different careers. According to a study, social preconceptions rather than differences in men's and women's Intelligence explain many gender differences in subject and career choice (Cheryan et al., 2017). According to Bian et al. (2017), boys and girls go through different socialization processes as a result of the gender stereotypes they encounter in their environments, and children's television shows may encourage gender stereotyping (Wille et al., 2018). According to earlier studies, the majority of students desire to be doctors (Gaurav & Sheikh, 2020), with engineering coming in second (Virtic & Sorgo, 2022). These findings are in line with previous studies. There is no denying that these two professions, although being well-known for many years and frequently regarded as the most prestigious and lucrative, are wonderful choices (Eagly & Wood, 1999). There are, nevertheless, several emerging professions with high wages and status. These occupations are the most common among students, even though not all students could pursue them. The kids are aware of the gender roles they have been assigned as well as their preferred careers. Students now understand how to discriminate between gender roles and pursue a job.

Therefore, parental influence, media richness, and gender stereotype perception all influence traditional career choice (Venant et al., 2021; Kumar & Nanda, 2019). The prevalence of gender preconceptions and job choices was found to be higher among female students than male students. Parents strive to impose their will on their children due to the collective culture of Pakistan. At this period of life, they try to teach their children in both direct and indirect ways, thus their influence on children is the same regardless of the child's gender.

Lastly, the study highlighted the impact of study program on adolescents mental and emotional health. The pressure of studies, to get admission and to be on the top is very frustrating for the students. It is difficult for them to cope with the expectations of their parents. Also, as they are aware of the pressure of the competition in their respective fields, they feel depressed and anxious due to the scarcity of seats. But for some students, this pressure was motivating due to the supportive and healthy environment around them. These findings are similar with Arslan (2018) that adolescents with high levels of the school belonging have low levels of the emotional distress, yet high levels of the emotional wellbeing.

Future Research Directions

The major aim of the research was to support the concept of shared cognitive and emotional experiences in literature. To the best of the researcher's knowledge, this is the first qualitative study to incorporate the concept of shared cognitive and emotional experiences. No prior research has been done which incorporates both the factors together. Therefore, future research should be conducted in this domain to strengthen the literature. The results gathered helped in understanding the demography of stigmas attached with the career choice. The research helped to understand that the program of the study contributes a lot in the career choice and emotional and mental health. The study highlighted the difference between the A- levels and medical students' career choices .

Limitations

Despite the significant findings present research has few limitations. As most of the interview were taken from the F.sc. and A-levels, it is suggested that students from other disciplines should also be inquired. Apart from cognitive and emotional factors, environmental factors should also be investigated.

Implications

Furthermore, Study results indicated the importance of career counseling in the present education system. Especially parents should be guided about the impact of forced career choices on their children. In addition, girls' education awareness programs should be provided to both the family as well as the female students. This awareness would help to reduce the stigmas attached with girl's career choice.

REFERENCES

- Abbasi, M. N., & Sarwat, N. (2014). Factors inducing career choice: Comparative study of five leading professions in Pakistan. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 8(3), 830-845. <https://doi.org/10.1177/0894845305277043>.
- Agarwala, T. (2008). Factors influencing career choice of management students in India. *Career Development International*, 13(4), 362-376. <https://doi.org/10.1108/13620430810880844>.
- Alyafei, A. S. (2018). Contextual factors affecting social work career choice among Qatari students. *European Journal of Social Sciences*, 56(1), 102-114.
- Anojan, V., & Nimalathasan, B. (2013). Factors influencing in career choice of second year undergraduate students: A case study of faculty of management studies and commerce. *International journal of social science and Interdisciplinary research*, 2(11), 16-25.
- Arslan, G. (2018). Understanding the association between school belonging and emotional health in adolescents. *International Journal of Educational Psychology*, 7(1), 21-41. <https://doi.org/10.17583/ijep.2018.3117>.
- Aycan, Z., & Fikret-Pasa, S. (2003). Career choices, job selection criteria, and leadership preferences in a transitional nation: The case of Turkey. *Journal of Career Development*, 30(2), 129-144. <https://doi.org/10.1177/089484530303000203>.
- Bagozzi, R. P., Dholakia, U. M., & Basuroy, S. (2003). How effortful decisions get enacted: The motivating role of decision processes, desires, and anticipated emotions. *Journal of Behavioral Decision Making*, 16(4), 273-295. <https://doi.org/10.1002/bdm.446>
- Bakshi, A. J., Gandhi, H. N., Shah, R., & Maru, K. (2012). Influences on Career Choices as Perceived by Youth in Mumbai. *Indian Journal of Career and Livelihood Planning*, 1(1), 1-12.
- Bergen, R. J. S. (2006). *Family influences on young adult career development and aspirations* (Doctoral dissertation). University of North Texas, Denton, TX.
- Bian, L., Leslie, S. J., & Cimpian, A. (2017). Gender stereotypes about intellectual ability emerge early and influence children's interests. *Science*, 355(6323), 389-391. <https://doi.org/10.1126/science.aah6524>.
- Byrne, N. (2015). Exposure to occupational therapy as a factor influencing recruitment to the profession. *Australian Occupational Therapy Journal*, 62(4), 228-237. <https://doi.org/10.1111/1440-1630.12191>.
- Cameron, L. D., & Leventhal, H. (2003). *The self-regulation of health and illness behaviour*. London, UK: Routledge.
- Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological bulletin*, 143(1), 1-35. <https://doi.org/10.1037/bul0000052>.
- Clarke, V., & Braun, V. (2013). *Successful qualitative research: A practical guide for beginners*. California CA: SAGE Publications.
- Di Fabio, A., Palazzeschi, L., & Bar-On, R. (2012). The role of personality traits, core self-evaluation, and emotional intelligence in career decision-making difficulties. *Journal of employment counseling*, 49(3), 118-129. <https://doi.org/10.1002/j.2161-1920.2012.00012.x>.
- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American psychologist*, 54(6), 408-424. <https://doi.org/10.7551/mitpress/2874.003.0015>.
- Falaye, F. W., & Adams, B. T. (2008). An assessment of factors influencing career decisions of in-school youths. *Pakistan Journal of social sciences*, 5(3), 222-225.
- Gaurav, S., & Sheikh, R. A. (2020). The road not taken: who works as a doctor or engineer in India? *Journal of Education and Work*, 33(3), 254-270. <https://doi.org/10.1080/13639080.2020.1754362>.
- Gilovich, T., Griffin, D., & Kahneman, D. (2002). *Heuristics and biases: The psychology of intuitive judgment*. Cambridge, UK, Cambridge university press.
- Gokuladas, V. K. (2010). Factors that influence first-career choice of undergraduate engineers in software services companies: A south Indian experience. *Career Development International*, 15(2), 144-165. <https://doi.org/10.1108/13620431011040941>.
- Hirschi, A., & Freund, P. A. (2014). Career engagement: Investigating intraindividual predictors of weekly fluctuations in proactive career behaviors. *The Career Development Quarterly*, 62(1), 5-20. <https://doi.org/10.1002/j.2161-0045.2014.00066.x>.
- Humayon, A. A., Raza, S., & Khan, R. A. (2018). Effect of family influence, personal interest and economic considerations on career choice amongst undergraduate students in higher educational institutions of Vehari, Pakistan. *International Journal of Organizational Leadership*, 7(2), 129-142. <https://doi.org/10.33844/ijol.2018.60333>.
- Ibuka, Y., Li, M., Vietri, J., Chapman, G. B., & Galvani, A. P. (2014). Free-riding behavior in vaccination decisions: an experimental study. *PloS one*, 9(1), 1-9. <https://doi.org/10.1371/journal.pone.0094066>.
- Igere, M. A. (2017). Career choice and its influence on academic performance of library and information science students in a Nigerian University. *Information Impact: Journal of Information and Knowledge Management*, 8(2), 90-98. <https://doi.org/10.4314/ijikm.v8i2.8>.

- Immordino-Yang, M. H., & Fischer, K. W. (2010). Neuroscience bases of learning. *International encyclopedia of education*. Oxford, England: Elsevier.
- Judge, T. A., Klinger, R. L., & Simon, L. S. (2010). Time is on my side: Time, general mental ability, human capital, and extrinsic career success. *Journal of Applied Psychology*, 95(1), 92-107. <https://doi.org/10.1037/a0017594>.
- Karaca, E., Gökçek Karaca, N., & Dziegielewski, S. F. (2016). Factors affecting choice and satisfaction: Social work in Turkey. *Journal of Social Service Research*, 42(4), 565-571. <https://doi.org/10.1080/01488376.2016.1147520>.
- Katz, I., Cohen, R., Green-Cohen, M., & Morsiano-davidpur, S. (2018). Parental support for adolescents' autonomy while making a first career decision. *Learning and Individual Differences*, 65, 12-19. <https://doi.org/10.1016/j.lindif.2018.05.006>.
- Katz, I., Eilott, K., & Nevo, N. (2014). "I'll do it later": Type of motivation, self-efficacy and homework procrastination. *Motivation and Emotion*, 38(1), 111-119. <https://doi.org/10.1007/s11031-013-9366-1>.
- Krapp, A., & Prenzel, M. (2011). Research on interest in science: Theories, methods, and findings. *International journal of science education*, 33(1), 27-50. <https://doi.org/10.1080/09500693.2010.518645>.
- Kumar, V., & Nanda, P. (2019). Social media in higher education: A framework for continuous engagement. *International Journal of Information and Communication Technology Education (IJICTE)*, 15(1), 97-108. <https://doi.org/10.4018/ijicte.2019010107>.
- Lamont, M. (2009). *How professors think: Inside the curious world of academic judgment*. Massachusetts, MA: Harvard University Press.
- Lamont, M. (2012). Toward a comparative sociology of valuation and evaluation. *Annual review of sociology*, 38(1), 201-221. <https://doi.org/10.1146/annurev-soc-070308-120022>.
- Lemaitre, T., Couturier, Y., Guillette, M., Gagnon, D., Belzile, L., Cone, A. L., & Wankah, P. (2022). Identity coherence and differentiated life trajectories among social work students. *Social Work Education*, 1-15. <https://doi.org/10.1080/02615479.2022.2115996>.
- Levin, N., & Gati, I. (2015). Imagined and unconscious career barriers: A challenge for career decision making in the 21st century. In *Exploring new horizons in career counselling*. Leiden, Netherlands: Brill.
- Liu, Y., & Hou, S. (2018). Potential reciprocal relationship between motivation and achievement: A longitudinal study. *School Psychology International*, 39(1), 38-55. <https://doi.org/10.1177/0143034317710574>.
- Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological bulletin*, 127(2), 267.
- Lofland, J., & Lofland, L. H. (1999). Data logging in observation: Fieldnotes. *Qualitative research*. London, England: Sage.
- Mudhovozi, P., & Chireshe, R. (2012). Socio-demographic factors influencing career decision-making among undergraduate psychology students in South Africa. *Journal of Social Sciences*, 31(2), 167-176. <https://doi.org/10.1080/09718923.2012.11893025>.
- Najar, I. A., & Yousuf, M. (2019). Career Selection and its Various Determinants. *IJRAR: International Journal of Research and Analytical Reviews*, 6(1), 61-64. <https://doi.org/10.1002/9781118907283.ch6>.
- Ng, T. W., & Feldman, D. C. (2010). The relationships of age with job attitudes: A meta-analysis. *Personnel psychology*, 63(3), 677-718. <https://doi.org/10.1111/j.1744-6570.2010.01184.x>.
- Olson, J. S. (2014). Opportunities, obstacles, and options: First-generation college graduates and social cognitive career theory. *Journal of Career Development*, 41(3), 199-217. <https://doi.org/10.1177/0894845313486352>.
- Pesch, K. M., Larson, L. M., & Surapaneni, S. (2016). Parental autonomy support and career well-being: Mediating effects of perceived academic competence and volitional autonomy. *Journal of Career Assessment*, 24(3), 497-512. <https://doi.org/10.1177/1069072715599392>.
- Pham, M. T. (2007). Emotion and rationality: A critical review and interpretation of empirical evidence. *Review of general psychology*, 11(2), 155-178.
- Purohit, D., Jayswal, M., & Muduli, A. (2020). Factors influencing graduate job choice—a systematic literature review. *European Journal of Training and Development*, 45(5), 381-401. <https://doi.org/10.1108/ejtd-06-2020-0101>.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York, NY: Guilford Publications.
- Ryan, R. M., Huta, V., & Deci, E. L. (2013). Living well: A self-determination theory perspective on eudaimonia. *Journal of happiness studies*, 9(1), 139-170. <https://doi.org/10.1007/s10902-006-9023-4>.
- Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers college press.
- Shahzad, M. N., Zahra, S. T., & Ahmed, M. A. (2014). Determinants and influences on students career choice. *University Journal of Management and Social Science*, 4(3), 9-30.
- Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and social psychology review*, 8(3), 220-247. <https://doi.org/10.1037/e413812005-779>.
- Sultana, T., & Mahmud, M. K. (2020). Exploring the influential stimulators of career choice: An empirical assessment by exploratory factor analysis. *Asian Journal of Empirical Research*, 10(5), 137-149. <https://doi.org/10.18488/journal.1007/2020.10.5/1007.5.137.149>.

- Thagard, P., & Kroon, F. W. (2006). Emotional consensus in group decision making. *Mind & Society*, 5(1), 85-104. <https://doi.org/10.7551/mitpress/3566.003.0008>.
- Uyar, A., Gungormus, A. H., & Kuzey, C. (2011). Factors affecting students career choice in accounting: the case of a Turkish University. *American Journal of Business Education (AJBE)*, 4(10), 29-38. <https://doi.org/10.19030/ajbe.v4i10.6061>.
- Vasquez, A. C., Patall, E. A., Fong, C. J., Corrigan, A. S., & Pine, L. (2016). Parent autonomy support, academic achievement, and psychosocial functioning: A meta-analysis of research. *Educational Psychology Review*, 28(3), 605-644. <https://doi.org/10.1007/s10648-015-9329-z>.
- Venant, T., Arego, S., & Ngussa, B. M. (2021). The role of teachers and parents on students' career choice preparedness based on gender: A case of secondary schools in Arusha District, Tanzania. *International Journal of Educational Policy Research and Review*, 18(6), 1-9. <https://doi.org/10.15739/ijeprr.21.025>.
- Virtič, M. P., & Šorgo, A. (2022). Lower secondary school experiences as predictors of career aspirations toward engineering, and production and processing occupations. *European Journal of Engineering Education*, 47(5), 833-850. <https://doi.org/10.1080/03043797.2022.2033169>.
- Wille, E., Gaspard, H., Trautwein, U., Oschatz, K., Scheiter, K., & Nagengast, B. (2018). Gender stereotypes in a children's television program: Effects on girls' and boys' stereotype endorsement, math performance, motivational dispositions, and attitudes. *Frontiers in Psychology*, 9, 1-17. <https://doi.org/10.3389/fpsyg.2018.02435>.
- Woasey, F. A. (2015). *Factors influencing the career choice of undergraduate students in the humanities of the University of Ghana* (Doctoral dissertation). University of Ghana, Accra, Ghana.
- Young, R. A., Valach, L., & Collin, A. (2002). A contextualist explanation of career. *Career Choice and Development*, 4, 206-252.