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## AN EMPIRICAL INVESTIGATION OF THE IMPACT OF COVID-19 PANDEMIC ON UNIVERSITY STUDENTS

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### ABSTRACT

The purpose of this study is to examine the psychological consequences of COVID-19 pandemic on the current attitudes, behaviours, and future expectations of Gen Z as the upcoming generation of the business life. Data were gathered through an online survey during lockdown. The sample consists of 299 undergraduate students studying business major. Findings revealed that the respondents are hopeful about the future despite the pandemic. However, the female respondents feel less secure and more pessimistic in terms of the new normal conditions. Results also revealed that they tend to take more actions to the unknown future. Further recommendations are also provided.

**KEYWORDS:** covid-19; future expectations; gen z; gender differences

### 1. INTRODUCTION

COVID-19, which was first observed in Wuhan, China in December 2019, was announced as a pandemic by the World Health Organization (WHO) on March 11, 2020, when the number of patients was counted 126,000 worldwide. After the rapid spread of COVID-19 in China, Europe became the center of the pandemic in a short time resulting in an outbreak of numerous cases of infected people and a critical number of deaths due to the continuing mobility between countries. In more than 100 countries, a full or partial lockdown by the end of March 2020 was applied, affecting billions of people. Countries have introduced several measures such as travel restrictions (both inward and outward), social distancing, self-isolation, or quarantine, closing the bars, restaurants, beaches, and other areas where people gather to minimize opportunities for spread. At the mid of March, many countries issued a nationwide full or partial lockdown and ordered their residents stay at home, closed their borders with their neighbours and put restrictions also travelling within and without the country. Schools, universities, and all non-essential businesses were closed (DW 2020).

In Turkey, after the first case reported in March, the number of patients began to increase rapidly as well and according to the official website of the Republic of Turkey Ministry of Health, there were 7402 confirmed cases and 1704 suspected cases of COVID-19 as of March 2020. Turkish Government took urgent but more aggressive actions as a response to the pandemic; after the first case announced in Turkey on 11.03.2020. Government first closed all primary, secondary schools and universities on 12th of March and closed its borders to the most of European countries on 13th March. Moreover, Turkish Government, announced a curfew for those who are over the age of 65 and below 20 or chronically having sicknesses on 21 March 2020 (Anadolu Agency 2020). There was also curfew for all citizens during weekends and holidays and these conditions continued until 11 June 2020. So Turkish citizens experienced a real lockdown for that time.

Because of the above-mentioned conditions, epidemic has brought not only the risk of death from infection but also unrecoverable psychological pressure on people at any age (Cao et al. 2020). Some have reacted irresponsibly way, due to their ignorance or it was their way of coping with fear. In the past, the experience of Spanish flu has also showed that, pandemics shape individual behaviours and the society by reducing education attainment (Beach et al. 2018), prompting a wave of workers strikes and reaction to rising inequality (Riley 2020).

Today, people at various ages show a wide variety of attitudes and behaviours towards the pandemic. Based on Theory of Planned Behaviour, it can be mentioned that attitudes are the major causes of behavioural intentions, which are followed by the actual behaviours. The positive or negative future expectations of the individual will determine their ideals and eventually transform to personality traits as well as will have behavioural and cognitive consequences in business life (Gjesme 1983; Şimşek 2012; Yurtkoru and Taştan 2018).

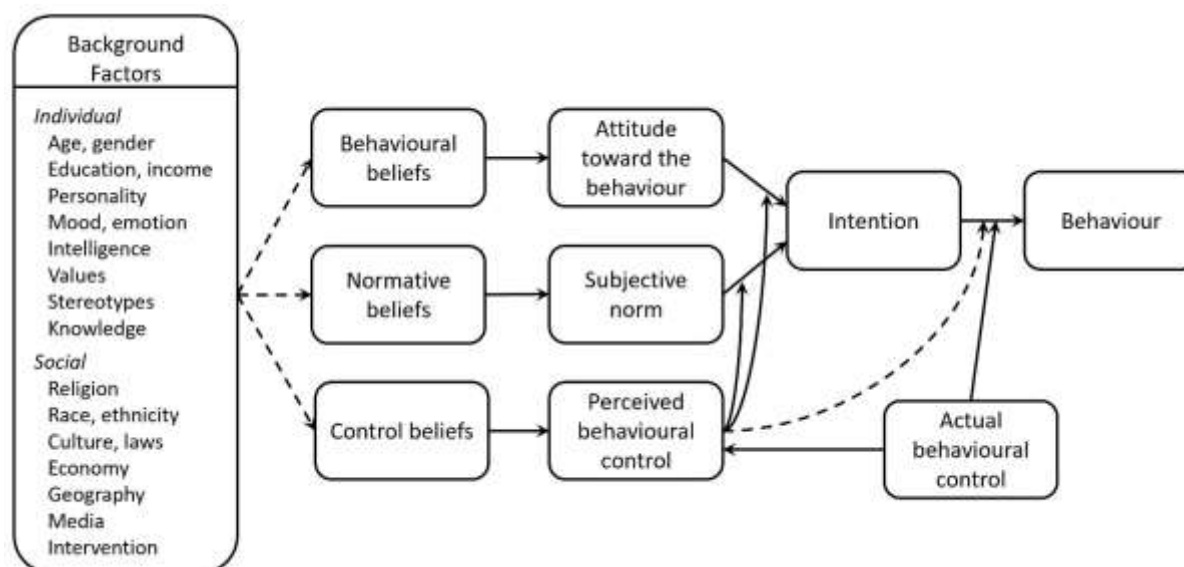
There has been a significant rise in the interest of Covid-19 outbreak and its effects on childhood, adolescents, and adults. Yet, the literature presents limited evidence concerning the effects of Covid-19 pandemic on Gen Z. To fill this gap, our purpose is to investigate young generation's attitudes triggered by pandemic, particularly the university students. The underlying motivation choosing the university students depends on critical factors. In this sense, this study will be the initial effort to reveal to what extent the Covid-19 pandemic affected future expectations of generation Z. Turkey was one of the first countries that exposed curfew among residents which endured couple of months. Second, the young population under 20 have experienced the first pandemic and lockdown ever and they were forbidden to leave their homes until the government announced the new normalizing plans for the country in the beginning of summer. Another argument is that engagement of Gen Z to work-life will have a significant impact on the future workforce. The young population corresponds to 15.6 percent of the total population. According to the survey of "Youth in Statistics 2019" announced by Turkey Statistical Institute (TSI), young people in the 15-24 age group is equal to 15.6 percent of Turkey's population. Therefore, it is critical to understand the impact of lockdown on these young people. It is well established that women tend to report higher levels of psychological distress than men tend to

report (Zamarro et al. 2020). Hence, it will be insightful to compare the attitudes toward lockdown and the future expectations under the pandemic concerning gender as well.

The study aims to explore the effects of pandemic on Gen Z university students' attitudes and future expectations. The study also contributes by examining the gender differences in terms of attitudes and future expectations. Within this purpose, after introduction, the theoretical background of Gen Z attitudes towards pandemic and the findings are discussed. Further implications are also provided.

## 2. THEORETICAL FRAMEWORK

Ajzen (2005:3) defines attitudes as "a disposition to respond favourably and unfavourably to an object, person, institution, or event." Attitudes show the positive or negative positioning of the individual towards people, objects, and events because of their experiences and their lifestyles. In another way of saying, attitudes help us to identify what is good or bad or what is acceptable or unacceptable in our environment. Some scholars supported the idea of human behaviours are guided by social attitudes (Thurstone and Chave 1929; Stagner 1942). Besides, many researchers examined the effects of attitudes on individuals' behaviour and the relationship between the other two attitude components (affective and cognitive) and behaviour (Baron and Brynen 1981; Millar and Tesser 1986). These components help to understand the attitude-behaviour relation. Cognitive component reflects the beliefs, opinions, knowledge, and information of an individual whereas the affective component reflects the emotions and feelings of an individual. Some researchers support the idea that the affective component of attitudes is post-cognitive (Edwards 1990). Theory of planned behaviour (TPB) proposed by Ajzen (1985), states that attitude, subject norms, and perceived behavioural control, together shape an individual's behavioural intentions and behaviours. The theory was developed from the Theory of Reasoned Action (TRA) that was proposed by Ajzen and Fishbein (1977), grounded on learning theories, expectancy-value theories, consistency theories, and attribution theory. In the TRA, behaviour is determined by behavioural intentions (Ajzen and Fishbein 1977). According to Ajzen and Fishbein (1977), intention is the sole and primary determinant of behaviour. As a result of a counter-argument which questions the existence of the relationship between behavioural intention and actual behaviour, Ajzen introduced the TPB by adding a new component, 'perceived behavioural control'. In the TPB, intention is a function of three determinants: attitude, subjective norm, and perceived behavioural control, as illustrated in Figure 1.



**Figure 1. The Theory of Planned Behaviour with Background Factors**

Source: Retrieved from: <https://people.umass.edu/aizen/tpb.background.html> Access: 18.01.2022

As we suggest, the theory of planned behaviour is helpful to examine and predict the behaviours of the employees, employers, and customers. Since behavioural beliefs are developed by individual and social factors, they affect attitude towards job, which has an impact on behavioural intention and therefore the realized behaviour. Hence, the effect of those factors on such as expectations, values, and generational differences on individual attitudes has been questioned by many researchers. For example, some researchers revealed that expectations and values are a predictor of work-related behaviours (Dugoni and Ilgen 1981; Greenhaus et al. 1983), while some researchers focused on gender differences in employees' and customers' attitudes (Wehrmeyer and McNeil 2000; Morris, Venkatesh and Ackerman 2005; Jones et al. 2017). Similarly, there have been efforts to understand the generational differences in terms of job attitudes as well as differences between the perception of job satisfaction and salient work-life balance issues of Boomers, Gen X and Y (Tai et al. 2013; Usmani et al. 2019).

### 3. COVID-19 PANDEMIC AND GENERATION Z

In 2020, Covid-19 outbreak affected many lives in many different aspects and expected to affect the upcoming generation. In this sense, the latest pandemic may be leading to a new generational divide (Foroohar 2020). There have been attempts to suggest that Covid-19 is 'bringing out' (assumed) generational differences (Rudolph and Zacher 2020). Upon so far, the studies have distinguished a group of people at different ages into "generations" and attempted to speak of distinctions between such groups as "generational differences". Generational cohorts provide researchers with the tool to observe changes in values, behaviours, attitudes, and expectations over time. They can provide a way

to understand how recent experiences (such as technological, economic, political, and social shifts) interact with the life cycle and ageing process to shape different gen's views.

**Table 1. Generations between 1928-2012**

	Name of the Generation				
	Silent Generation	Baby Boomers	Generation X	Generation Y	Generation Z
Years born (approximately)	1928-1945	1946- 1964	1965-1980	1981-1996	1997-2012
Characterized by	Strong work ethics, disciplined, working with the system, loyal, and don't like waste	Individualistic, experimental, believe in rules, hardworking, loyal, confident, and competitive	Hardworking, anti-authority, and highly individualistic characteristics and family oriented	Confident, digital thinkers, needy and having high entrepreneurial intention and sense of entitlement.	Technology oriented, skill focused, creative, pragmatic, creative, goal oriented, impatient (bored easily) multitasking, self-expressive

Generations are often considered by their span, but again there is no agreed-upon formula for how long that span should be. The common generations and their characteristics are summarised in Table 1. These differences have been studied by many researchers since decades as they tried to characterise each generation. For example, the effect of “First and Second World War” and “Great Depression” affected people who were born in these periods as they are called The Silent Generation. Generations are inherently diverse and complex groups not simple caricatures. Yet, because of the explained reasons, there are several distinctions between generations in the literature. For example, Gen X is generally defined by ‘work to live’, Gen Y by ‘work-life balance’ and Gen Z by ‘work-life conflict’. Gen Y has perhaps been the most studied generation after baby-boomers. Until today, with all nicknames Gen Y was related to some characteristics that describe them as “Generation Me”, “Nexters”, “Look at Me Generation”, “i-Generation”, “children of globalization”, and “Digital Immigrants”.

Today, Gen Z (born roughly between 1997 and 2012), also called ‘born global generation’ differs from previous generations of X and Y. They are expected to influence the future more than other generations. Understanding Gen Z's characteristics can provide insight into what has influenced the perspectives of this new generation (Seemiller and Grace 2017). In fact, many of the qualities and preferences of Gen Z that described in the upcoming sections may lend themselves to positive



developments in this period (Marshall and Wolanskyj-Spinner 2020). Although not everyone born in a generational period shares the same values or experiences, they do share a common context that shapes their worldview. First and foremost, they are the first generation fully born to the digital world. The iPhone was launched in 2007 when the oldest Gen Z was 10. Most of Gen Z have used the Internet since young ages and are comfortable with technology and social media. According to Berkup (2014), Gen Z is expected to have specified characteristics such as creativity, efficient technology utilization, global point of view and individualism (not to like the teamwork), multitasking, preference of non-standard and personalized works.

Besides above, Maioli (2017) adds some more common characteristics that belongs to Gen Z as self-expressive, open to change and tolerant than other generations, being optimistic about the future. Furthermore, they do not like routine tasks and often bore easily, have short attention spans, want to achieve a good life-work balance, and are interested in a flexible work environment. The views and opinions of this generation are not fully formed, as they are quite young and could change considerably as they age.

Unlike preceding generations, millennials and Gen Z represent a new era of growing economic inequality. Rothman (2016) underlined the fact that they experienced a global recession, global warming issues, the rise of mobile devices, and cloud computing. Now they are experiencing a worldwide pandemic with the rest of the world. They come from smaller families with older parents who have traditional values and mothers who work outside the home. Even so, this early look provides some compelling clues about how Gen Z will help shape the future political landscape (Dimock 2019). Gharzai et al. (2020), mention that the unique experiences and skills of Gen Z will allow them to make important contributions towards navigating the ever-changing post-coronavirus disease world.

Engaging all generations in the pandemic response will leverage intergenerational innovation and optimize the coronavirus response. Whilst challenges of the pandemic for people, employees, organizations, countries are still being addressed; wider considerations for the impact on Gen Z, as near-future working force have been mostly neglected. The Gen Z, hyped as different from previous generations like Gen Y and before (DePryck et al. 2020), will certainly affect work life when the COVID-19 crisis is over.

Based on above discussion, this study assumes that outcomes of COVID induced lockdown and curfew should be discussed significantly for Gen Z, as they will present the major labour force for the upcoming future. Fostered by the impact of COVID-19, work life is estimated to readopt as their expectations because they are different from previous generations of X and Y. To recruit, train, and provide a career for this new generational cohort effectively. Therefore, organizations must clarify the overarching characteristics, perceptions, and expectations of this generation. Otherwise, it will be a challenge for organizations to hire and retain them for the sustainable growth of the organizations. Companies will be able to determine what can affect their recruitment and retention success by paying

attention to what this generation tick in the workplace (Singh and Dangmei 2016). In this sense, generational research can provide organizations with valuable information to design effective policies, programs, and practices (Seemiller and Grace 2017). The reasons why the university students that were under lockdown are chosen as the sample were that it could be possible to:

- (1) Measure the impact of the change on the attitudes of the higher education students that were under 20 (lockdown population in Turkey)
- (2) Evaluate the future expectations of Gen Z during the epidemic.

Higher education students are just about to enter the work environment and they belong to the cohort the Generation Z, the so called 'the first generation of true digital natives'. The impact of lockdown on these young people is critical to see and provide insights for organizations since their engagement to work-life will affect the future workforce. Another rationale is that; to reduce the number of COVID-19 pandemic, the government in Turkey replaced face to face education with online learning in March 2020, including childhood education, primary, secondary, and higher education. Rapidly changing the learning system from conventional to virtual learning during the COVID-19 pandemic has many challenges (Fansury et al. 2020). It is expected that both transition to virtual education in the universities and being under lockdown in the pandemic itself will influence the psychological expectations of students, which will reshape the future employment.

Despite numerous studies that highlight the effects of pandemic on childhood, adolescents, and adults, it is interesting to see limited research on Gen Z (particularly university students) as we assume that the changes by the pandemic will longer show its effects on future generations. Akdeniz et al. (2020) in their study assessed the spread and frequency of protective behaviours, emotional and anxiety status among respondents between the ages of 18–30. The study revealed that respondents were more fearful of their relatives catching the coronavirus disease than they were of themselves catching it. Galasso et al. (2020) with their panel data study from Organisation for Economic Co-operation and Development countries showed large gender differences in COVID-19–related beliefs and behaviours. According to the findings, women are more likely to perceive the pandemic as a very serious health problem and to agree and comply with restraining measures. Upon so far, scholars (Hou et al. 2020; Kopel et al. 2020; Newburn 2020; Özdin and Özdin 2020; Stevens 2020; Olaimat et al. 2020; Pieh et al. 2020) examined the gender differences, attitudes, and behaviours, yet the sample have covered patients that were diagnosed with Covid-19. There also some studies (Alon et al. 2020; Madgavkar et al. 2020) that highlight the impact of pandemic on gender equality or the attitudes towards injections of epidemic treatment (Hussein et al. 2020).

Based on the gap mentioned above; the major research questions of the study were designed as:

*Q1. What are the attitudes of Gen Z towards the pandemic?*

*Q2. What are the future expectations of Gen Z under the effect of the pandemic?*



We also consider that gender is a critical variable that will affect the main idea of the research. Regarding the theory of planned behaviour, gender might affect attitudes, behavioural intentions, and behaviours. In the related literature, there are many studies, which try to find an answer to gender differences in work behaviours of individuals. Despite raising consciousness about the gender equality in all over the world, because of the different roles of females and males in many societies we consider that there is gender bias in the perceptions of females and males about many subjects. Early studies indicate that gender affected both the experience and the impact of job insecurity on work attitudes; male teachers feel more insecure than female teachers do. Moreover, while males were mostly concerned with financial aspects of the job and with making a significant impact, females were concerned with work content and work schedule, as well as with financial aspects (Rosenblatt et al. 1999). The study of Hitlan, Clifton and DeSoto (2006) revealed that at higher levels of perceived exclusion males indicated lower satisfaction and psychological health compared to females. Another study (Ng et al. 2010) indicated that Millennials' expectations and values vary by gender; female workers were more likely than male workers to accept a less-than-ideal job and have lower salary expectations. According to the study of Leang et al. (2019), a fair number of female respondents agreed that it is better for a boy than a girl to study at university and female students have more concern (i.e. their gender is an obstacle to their success in life) than male students do. Most recently, study of Ausin et al. (2021) have showed that women showed more symptoms of depression, anxiety and PTSD, more feelings of loneliness and less spiritual wellbeing compared to men.

Based on the above discussions, we hypothesize that:

Hypothesis 1. The attitudes towards the pandemic will be different between female and male students.

Hypothesis 2. The future expectations under the effect of the pandemic will be different between female and male students.

#### **4. METHOD**

##### *Participants and data collection*

The data for this study were collected from higher education students studying business majors. The online questionnaire was conducted between May to June in 2020. On March 12, the universities in Turkey were closed due to COVID-19 pandemic for three weeks. Online education infrastructures were tested, and the spring semester started back in April. However, students were also given the chance to suspend their education. Therefore, until mid-April the online education did not proceed smoothly. When the data collection has started, students were back to their hometowns, online education was offered for some time, and precautions taken by the government against pandemic were at the highest level.

##### **Design**

Lime Survey, an online survey platform, was used to gather data. Link of the questionnaire was distributed to 700 higher education students. 299 questionnaires were completed. Considering, usually

the response rate of electronic surveys is not high, and the collection period was during a pandemic lockdown, we accepted 43 % return rate as sufficient.

### Measures

#### *Attitudes toward lockdown scale (ATL)*

To measure the attitudes toward lockdown, authors developed eleven items based on their observations and communications with higher education students. Items could be classified as education and self-development, sports and hobbies, mindful activities, boredom, and helplessness. Only the latter two of the items represented rather negative attitudes. We avoided depressing and stressful wording in general. Items were measured on a 5-point interval scale (1=totally disagree to 5=totally agree).

#### *Future expectations under the effect of pandemic scale (FEP)*

Based on prior research and scales on future expectations (McWhirter and McWhirter 2008) and communications with higher education students, we developed 33 items to measure the future expectations of students driven by pandemic. Items are categorized under two main dimensions: personal expectations, and general expectations. Personal expectations covered health and wellbeing related items, and profession and economic situation related items. In total, there were twenty personal future expectations questions. General expectations covered expectations about future work, and lifestyle, and pessimistic expectations. Even though we have avoided stressful wording in general, to be able to get a clear view of the young people's future expectations in terms of pandemic we had to include some items covering anxiety, and undesirable future. In total, there were thirteen general future expectations items. Students were asked to consider how much each item reflected their view about the future after the pandemic on a 5-point interval scale (1=totally disagree to 5=totally agree).

### Findings

Since the aim of this study was to illustrate the higher education students' a) attitudes and behaviours towards the pandemic, and b) their future expectations regarding their life and the environment after the pandemic, the results are presented under these two titles. First, the descriptive statistics findings of the scale items will be given. Second, the results will be compared with respect to gender of the students, to see the similarities and differences in how the pandemic was perceived.

### Frequencies

The sample consists of 61.2 % females 38.8 % males. Average age of the students was 21.12 with standard deviation of 1.66. 93 % of the students indicated they were staying with their parents during the pandemic. Only 4 % were alone, and the rest 4 % were with either friends or relatives.

#### **Attitudes toward lockdown**

As can be seen from Table 2, only two of the items were rated below average on five-point interval scale. Those two items were 'I did meditation, yoga or similar activities' and 'I fulfilled my religious duties' indicating higher education students under lockdown were not into spiritual activities (M=2.67,

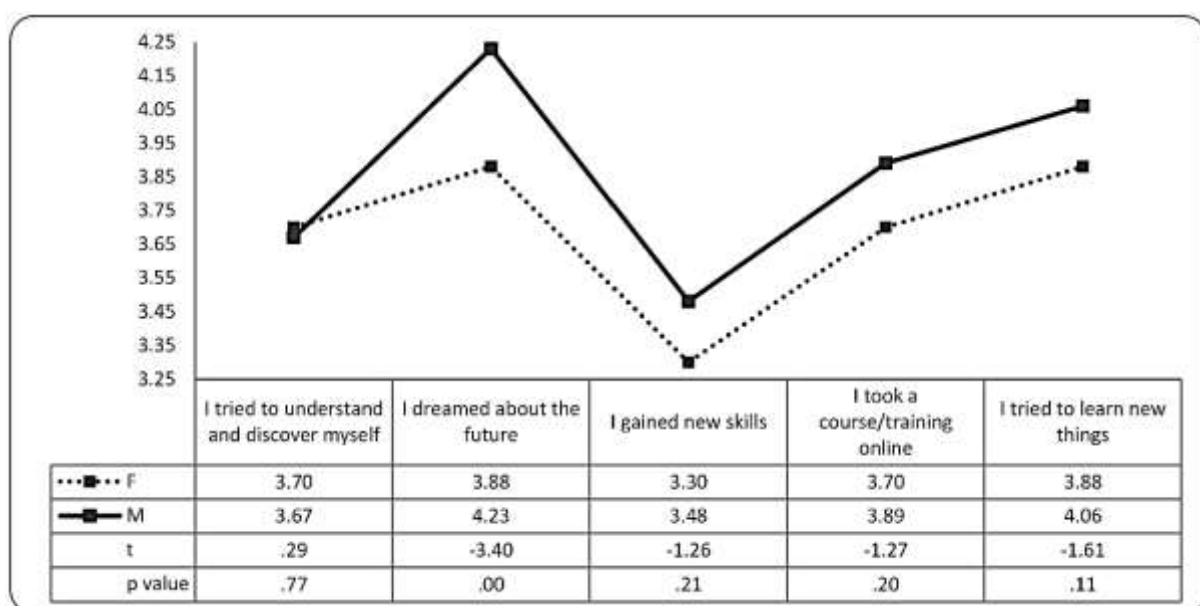
SD=1.49; M=2.62, SD=1.37 respectively). The items that were rated highest were 'I dreamed about the future' and 'I tried to learn new things', 'I took a course and training online' hence we can say they were engaged in self-developmental and educational activities (M=4.02, SD=0.97; M=3.95, SD=0.95; M=3.77, SD=1.24 respectively). However, the item 'I'm so bored of staying home' was also rated quite high compared to other items (M=3.76, SD=1.21).

**Table 2. The descriptive statistics of Attitudes Toward Lockdown**

Items*	M	SD
I dreamed about the future	4.02	0.97
I tried to learn new things	3.95	0.95
I took a course/training online	3.77	1.24
I'm so bored of staying at home	3.76	1.21
I took time for my hobbies	3.73	1.08
I tried to understand and discover myself	3.69	0.93
I exercised	3.51	1.38
I gained new skills	3.37	1.25
Staying at home messed up all my plans	3.25	1.32
I did meditation, yoga or similar activities	2.67	1.49
I fulfilled my religious duties	2.62	1.37

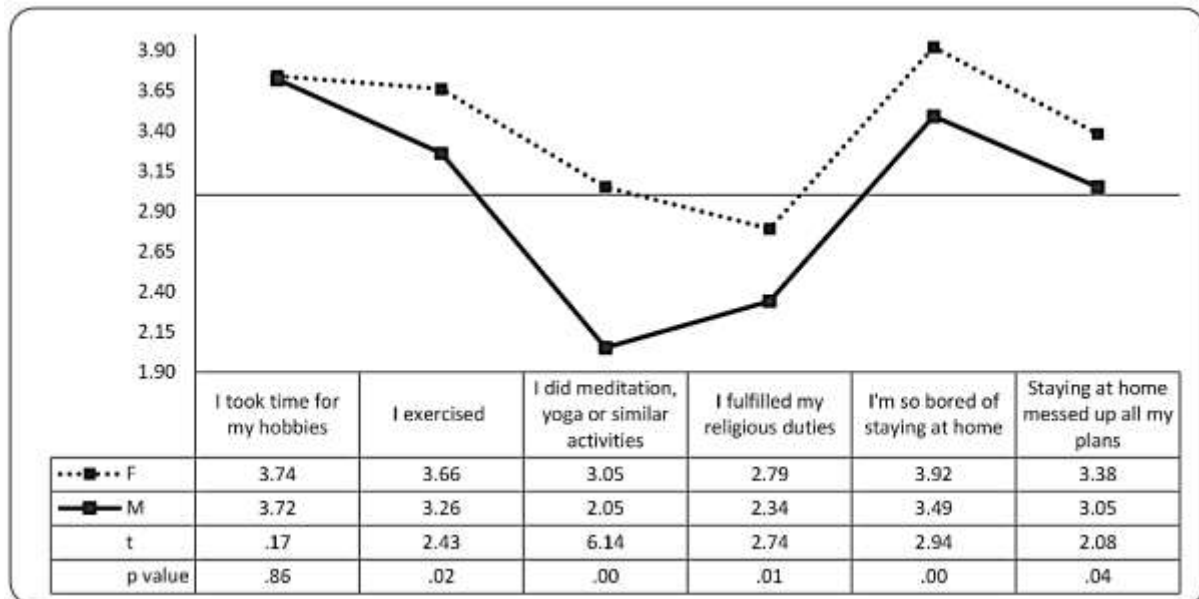
Note. N=299; \* items in descending order

To find out if the results showed a similar pattern between females and males, we have conducted a series of independent sample t-tests. The results were supported with graphical depictions as demonstrated in Figure 2 and 3.



**Figure 2. Independent samples t-test results: education and self-development items**

In education and self-development items, female and male students showed a remarkably similar pattern, as can be observed from Figure 2. Even though male students' answers to the questions were slightly higher than females', only one item 'I dreamed about the future' was statistically significant ( $M_{\text{female}}=3.88$ ,  $M_{\text{male}}=4.23$ ,  $t(296.5)=-1.26$ ,  $p=0.00$ ).



**Figure 3. Sports and hobbies, mindful activities, boredom, and helplessness items**

When the other items were tested, female students' answers were higher compared to males. Items 'I'm so bored of staying at home' and 'staying at home messed up all my plans' were rated high female students than male students ( $M_{\text{female}}=3.92$ ,  $M_{\text{male}}=3.49$ ,  $t(217.4)=2.95$ ,  $p=0.00$ ;  $M_{\text{female}}=3.38$ ,  $M_{\text{male}}=3.05$ ,  $t(297)=2.74$ ,  $p=0.04$ , respectively). On the other hand, female students 'exercised', 'did meditation, yoga or similar activities' and 'fulfilled religious duties' more than male students ( $M_{\text{female}}=3.66$ ,  $M_{\text{male}}=3.26$ ,  $t(229.7)=2.43$ ,  $p=0.02$ ;  $M_{\text{female}}=3.05$ ,  $M_{\text{male}}=2.05$ ,  $t(263.3)=6.14$ ,  $p=0.00$ ;  $M_{\text{female}}=2.79$ ,  $M_{\text{male}}=2.34$ ,  $t(297)=2.74$ ,  $p=0.01$ , respectively). Indicating female students were involved more with mindful activities, though religious duties were less than average, to cope with the lockdown. Only 'I took time for my hobbies' was not statistically different between genders.

### Future expectations under the effect of pandemic

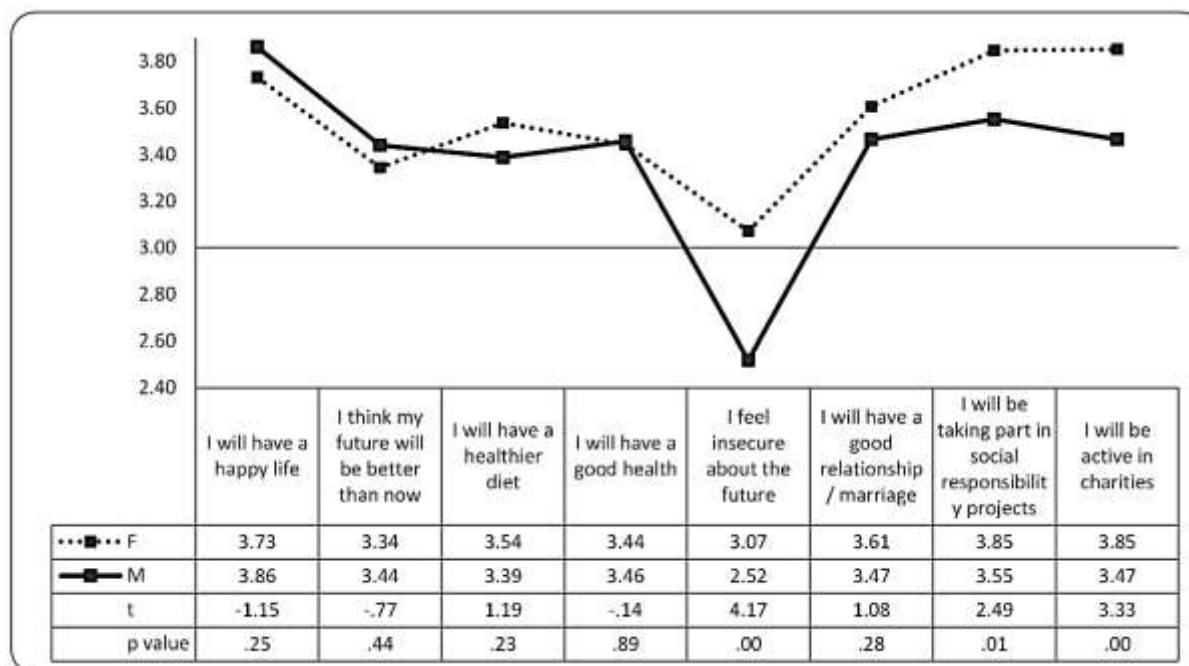
When we analysed the future expectations of students after Covid-19, personal items indicated that students had positive expectations about their future as demonstrated in Table 3. Even though the scores were not too high, all items measuring health and wellbeing were above average. The highest rated item was 'I will have a happy life' ( $M=3.78$ ,  $SD=0.95$ ), which was followed by 'I will be taking part in social responsibility projects' ( $M=3.73$ ,  $SD=0.97$ ).

**Table 3. The descriptive statistics of personal future expectations**

Items*	M	SD
I will have a happy life	3.78	0.95
I will be taking part in social responsibility projects	3.73	0.97
I will be able to provide good conditions for my children	3.70	0.92
I will be active in charities	3.70	0.96
I believe I will achieve my goals	3.67	1.01
I will have a good and reputable position in society	3.64	0.84
I think my economic situation will be fine	3.63	0.92
I will be doing a job I love	3.59	1.10
I will have a good relationship/marriage	3.55	1.10
I will have a healthier diet	3.48	1.04
I will have a good health	3.45	0.94
I think I will easily make my living	3.45	1.12
I think my future will be better than now	3.38	1.05
I think my living conditions will be good	3.35	0.98
I will be working in a known company	3.27	0.90
I will start my own company	3.04	1.10
I don't think I can find a job easily	3.03	1.33
My education will not be enough for me to find a job	3.01	1.34
I feel insecure about the future	2.86	1.15
I will be working in a foreign country	2.73	1.06

*Note. N=299; \* items in descending order*

The lowest score item was 'I will be working in a foreign country' ( $M=2.73$ ,  $SD=1.06$ ) which was interesting as career at foreign countries was extremely popular among youth lately. Especially starting with Gen Y more and more people were interested in working abroad and getting in connection with people from different countries (Ağaoğlu et al. 2019; Börü and Yurtkoru 2016). The other item that was rated low was 'I feel insecure about the future' revealing they feel secure about their future on the average ( $M=2.86$ ,  $SD=1.15$ ). Three items 'I will start my own company', 'I don't think I can find a job easily', and 'My education will not be enough for me to find a job' were rated just on the mid of five-point scale ( $M=3.04$ ,  $SD=1.10$ ;  $M=3.03$ ,  $SD=1.33$ ; and  $M=3.01$ ,  $SD=1.34$ , respectively). While having positive expectations about profession and economic situation on other items having these on a rather indecisive level is interesting. Therefore, we proceeded with independent sample t-tests to further analysis. The results were also supported with graphical depictions as demonstrated in Figure 4, 5 and 6.



**Figure 4. Health and wellbeing related items**

In health and wellbeing related items, only three items were answered differently by female and male students, as demonstrated above in Figure 4. Female students felt more ‘insecure about their future’ than male students ( $M_{\text{female}}=3.07$ ,  $M_{\text{male}}=2.52$ ,  $t(297)=4.17$ ,  $p=0.00$ ). In fact, male students’ insecurity was less than average. Again female students were more willing to take part in ‘social responsibility projects’ and ‘charity activities’ compared to male students ( $M_{\text{female}}=3.85$ ,  $M_{\text{male}}=3.55$ ,  $t(216.2)=2.49$ ,  $p=0.01$ ;  $M_{\text{female}}=3.85$ ,  $M_{\text{male}}=3.47$ ,  $t(213.6)=3.33$ ,  $p=0.00$ , respectively).

In profession and economic situation related items, as demonstrated in Figure 5 and 6, male students agreed more with items ‘I think my economic situation will be fine’, ‘I believe I will achieve my goals’ and ‘I will start my own company’ than female students ( $M_{\text{female}}=3.54$ ,  $M_{\text{male}}=3.77$ ,  $t(297)=-2.09$ ,  $p=0.04$ ;  $M_{\text{female}}=3.55$ ,  $M_{\text{male}}=3.85$ ,  $t(297)=-2.53$ ,  $p=0.01$ ;  $M_{\text{female}}=2.88$ ,  $M_{\text{male}}=3.28$ ,  $t(297)=-.96$ ,  $p=0.04$ , respectively).



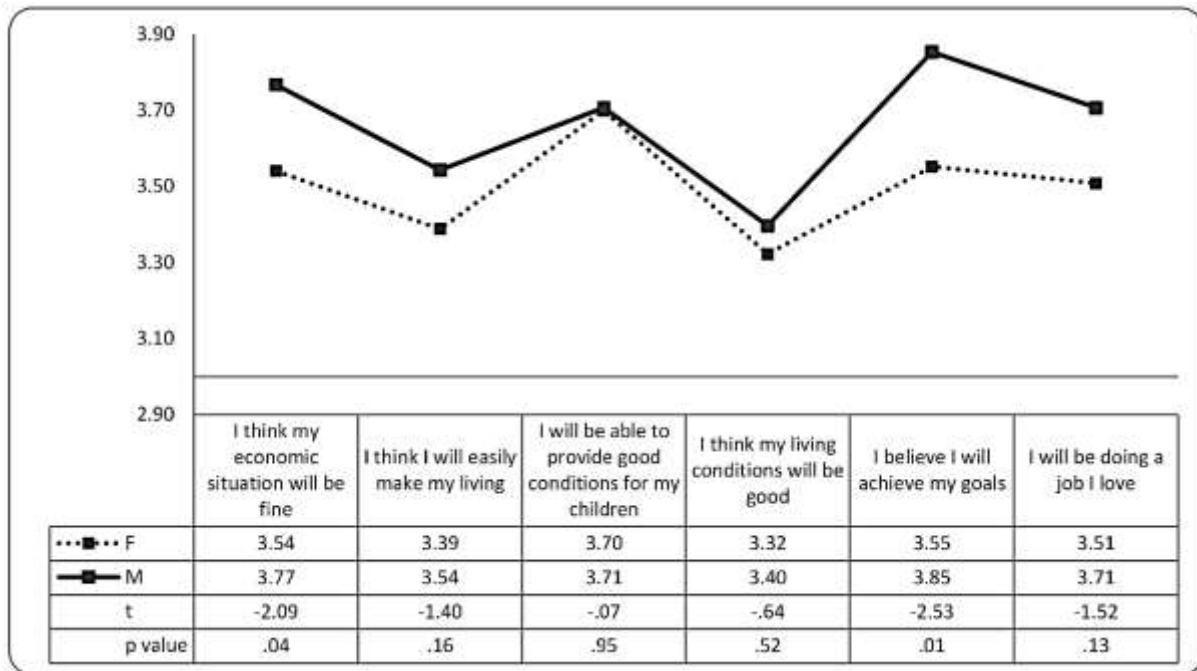


Figure 5. Profession and economic situation

According to the results, female students agreed more with the item 'I don't think I can find a job easily' more than males ( $M_{\text{female}}=3.23$ ,  $M_{\text{male}}=2.72$ ,  $t(297)=3.35$ ,  $p=0.00$ ).

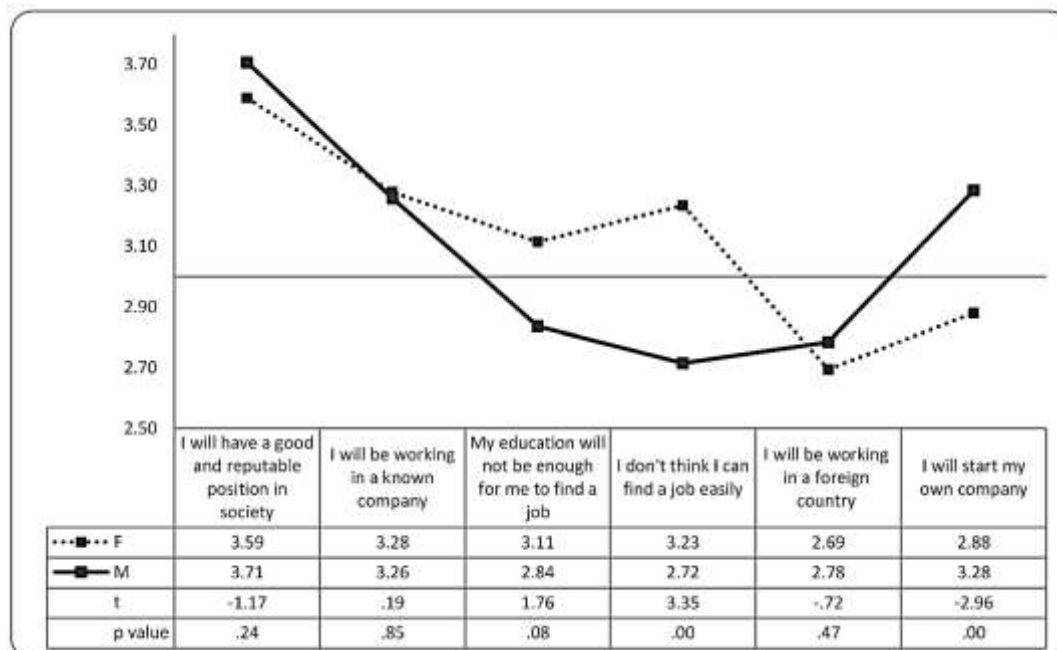


Figure 6. Profession and economic situation - continued

These findings indicated that male students have more confidence about actualizing their professional goals and achieving better economic situation than female students do.

**Table 4. The descriptive statistics results of general future expectations items**

Items*	M	SD
Online shopping will be a part of life	4.48	0.72
Technology will dominate everything	3.88	1.02
Professions will be different from current professions	3.71	0.98
It will be much more difficult to be successful	3.57	1.10
The world will be a more dangerous place than now	3.45	0.88
New world order worries me	3.17	1.28
Friendships will be superficial/shallow	3.02	1.24
Movement between countries will be easier	3.00	1.12
There will be a return to natural life	2.97	1.15
Everyone will work from home	2.71	0.97
Environmental awareness will be developed in world	2.69	1.18
I am not hopeful for the future	2.63	1.19
I think this phenomenon will never end	2.49	1.10

*Note. N=299; \* items in descending order*

When we further analysed the future expectations of students after Covid-19, as demonstrated in Table 4, general items indicated that students expected online shopping and technology dominating their lives ( $M=4.48$ ,  $SD=0.72$ ;  $M=3.88$ ,  $SD=1.02$  respectively). They also expected a change in professions ( $M=3.71$ ,  $SD=0.98$ ) and thought being successful would be harder ( $M=3.57$ ,  $SD=1.10$ ). The lowest scored items were 'I think this phenomenon will never end' and 'I am not hopeful for the future' ( $M=2.49$ ,  $SD=1.10$ ;  $M=2.63$ ,  $SD=1.19$  respectively). Unfortunately, their expectations about 'Environmental awareness will be developed in world' were also low ( $M=2.71$ ,  $SD=0.97$ ).

When gender differences were tested by independent samples t-test, like in personal future expectations, females were less hopeful and more pessimistic about future. Except 'It will be much more difficult to be successful' and 'Friendships will be superficial/shallow' all items were statistically significant and female students scores were higher as demonstrated in Figure 7. What was good about these results was mean values were not high for both genders. Only results of 'New world order worries me' showed a great gap between genders ( $M_{\text{female}}=3.52$ ,  $M_{\text{male}}=2.62$ ,  $t(227.3)=6.35$ ,  $p=0.00$ ).

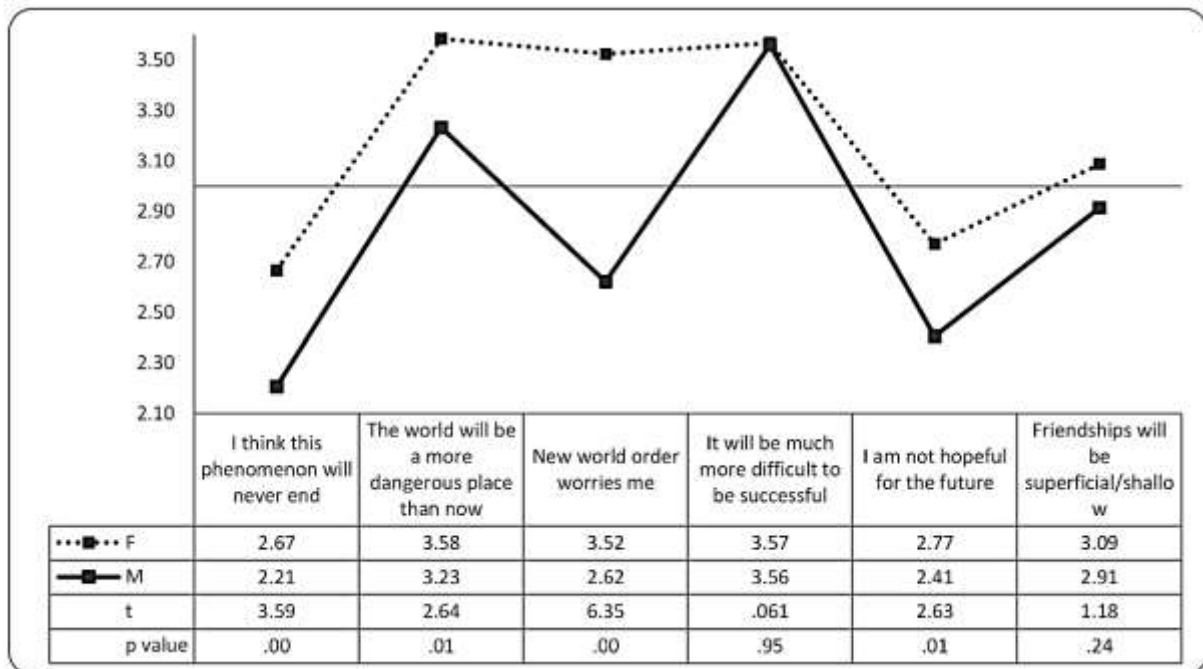
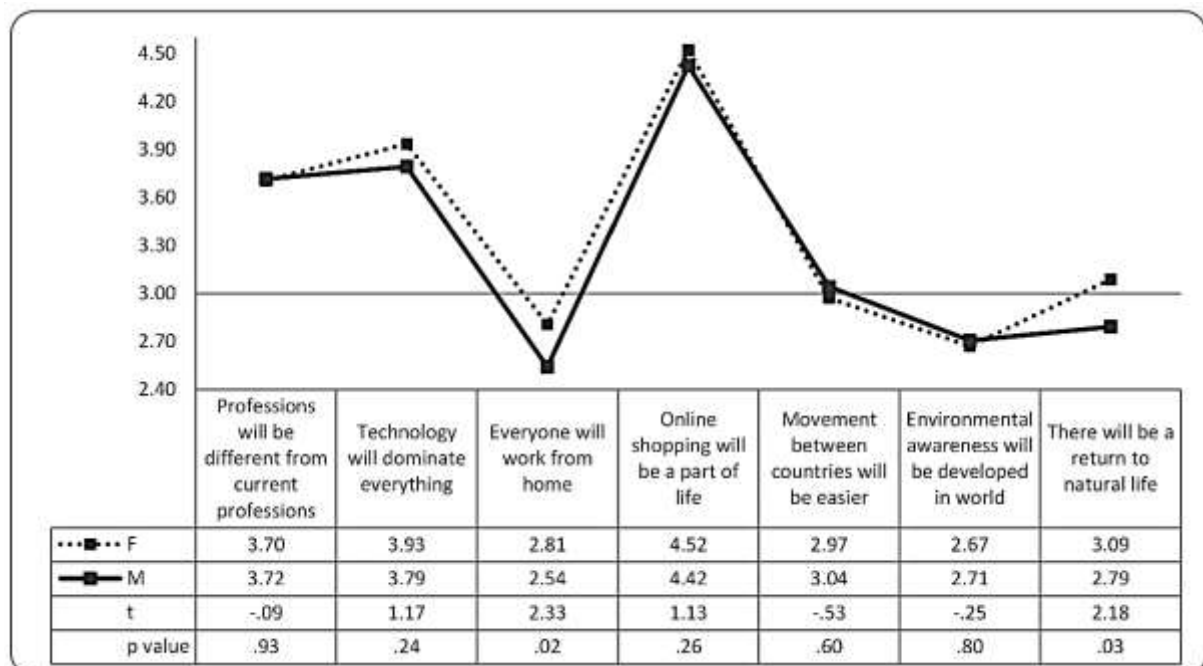


Figure 7. General expectations – Pessimistic

Regarding future work and lifestyle, both genders' expectations are future were quite similar and only two items showed statistically different results as indicated in Figure 8. Those items were 'Everyone will work from home' and 'There will be a return to natural life' ( $M_{\text{female}}=2.81$ ,  $M_{\text{male}}=2.54$ ,  $t(297)=-2.33$ ,  $p=0.02$ ;  $M_{\text{female}}=3.09$ ,  $M_{\text{male}}=2.79$ ,  $t(297)=2.18$ ,  $p=0.03$ ).



**Figure 8. General expectations – Future work and lifestyle**

Even though both genders' mean values were low, female students' expectations about working from home was higher. Similarly, females' expectations about returning to natural life were higher.

**5. CONCLUSION**

This study aims to provide important findings to the literature by examining the attitudes and behaviours of Gen Z students as well as their future expectations during pandemic. The results carry implications about how they react to unexpected and stressful environments as well. These findings will be useful to the people in management levels to be well prepared what is coming next couple of years and, also useful for researchers who aim to investigate all the aspects of the Gen Z. The findings of the study are summarized below:

- The respondents are hopeful about the future despite the pandemic. They are dreaming about the future. They do not feel insecure about the future. The respondents are optimistic even in the lockdown, since the optimistic items were rated high and the pessimistic items were rated lowest, that was promising to reveal higher education students were not very negatively affected by the pandemic. This finding is consistent with the relevant literature which says they are extremely self-confident and have optimistic view on their future professional life (Jones et al. 2007; Brack and Kelly 2012; Maioli 2017; Duffet 2020)
- They want to get engaged in social responsibility studies in line with Gen Z related literature where Gen Z youth was found to be more interested in social problems, and willing to contribute community, and charity programs, since they are more global-minded (Sladek and Grabinger 2018).
- The respondents are diligent to reach a better future, so they continue to be involved in self-developmental and educational activities even in the lockdown period. This finding also supports the idea of Schwieger and Ladwig (2018) which stressed the fact that they realize the importance of building skills. Thus, managers might use skill development as a tool, since people from Gen Z will become more loyal to their company if their company allow them to experience new things, develop their skills and growth opportunities.
- The respondents are so bored with staying home and deal with their hobbies and concentrate on activities such as exercise, yoga, or meditation (though the latter two are activities preferred only by female students) This is also consistent with the findings of Maioli (2017) which stated that they often bore easily, so they more impatient (Singh and Dangmei 2016, Rodriguez et al. 2019) and as already stated by Berkup (2014) that Gen Z has multitasking behaviour they needed to deal with some activities during the lockdown.
- Interestingly, the tendency to work abroad used to be extremely popular among youth lately – especially starting with Gen Y more and more people were interested in working abroad and getting in connection with people from different countries (Ağaoğlu et al. 2019; Börü and Yurtkoru 2016) – now is not popular as much as before probably because of the pandemic.

- Since Gen Z grew up in a recessionary period, they are realistic about future employment market and they know that they need to work harder than the previous generations (Iorgulescu 2016).
- The entrepreneurial intention of the respondents is not high. Gen Y was known with high entrepreneurial intentions (Mihalcea et al. 2012; Yurtkoru and Börü 2019) there is not enough evidence to describe Gen Z youth's entrepreneurial intentions yet, however early studies indicated they had risk-averse characteristics (Ensari 2017). Hence, the low rating for founding their own company may be a result of this risk averseness or it may be due to having more females in our sample than males. It is also known that females have less entrepreneurial intentions (Ensari 2017; Markussen and Roed 2017; Navarro and Jimenez 2016).

To conclude, the overall findings indicated that Covid-19 outbreak appears to be having a greater psychological impact on women than men similarly with the findings of Ausin et al. (2021), the exception is that our findings represent Gen Z. This is the first study in the literature that reports the psychological impact of Covid-19 on attitudes and future expectations within the gender differences.

## DISCUSSION

In the 21st century, business life and economic life has been changing very rapidly due to globalization. Because of easy access to information and technology, Gen Z, also called born global generation, or born to the Internet, is raised, and educated in quite different conditions than their ancestors. In the mid of 2010s, researchers were extremely excited to reveal the facts about Gen Z, since as they started to enter to the employment market, they become the focus of the academic interest more. There was not enough study to reveal the helpful facts to understand the characteristics, attitudes, intentions, and future expectations of the Gen Z when the pandemic happened at the end of 2019.

The pandemic and the following lockdown have caused different psychological influences on people. Individuals were also enforced to revise their priorities, future expectations, and attitudes of their routine life. Some were able to embrace it with resilience and took precautions. They abided what their governments and health authorities advised, stayed at home during lockdown, tried to improve their immune system by taking proper nutrition, and practiced physical exercise and or other spiritual practices like praying or meditation. When it was necessary to leave the house, they wore masks, kept their social distancing. They helped others by delivering medicine, food or just by keeping social interaction by calling and asking how they were doing. Many others also followed - at least some of - the above actions yet they were filled with stress and anxiety. They thought, felt, and shared negativity, blamed it on 2020. They not only increased their stress but stress of people in their circle as well.

Social psychologists agree on that the pandemic will affect all people attitudes and behaviours not only in short term but also in the future (Roy et al. 2020; Osterhoff and Palmer 2020; Song et al. 2020). In this sense, the COVID-19 pandemic declared by the WHO has dramatically impacted people's lives in each aspect worldwide. Not only the researchers on medical sciences but also many researchers on the

business area trying to understand the long-term consequences of the pandemic. Schools being closed and curfews have had a negative effect on both the musculoskeletal systems and psychology of children and young adults.

As mentioned in the previous sections, there are many gender differences in terms of general perspective on life and career perceptions on the contrary to the study of Sulimani-Aidan, Benbenishty (2011) and Mathur and Hameed (2016). Probably, because of the current inequalities between genders in terms of wages and positions they occupy stated by Yi et al. (2015) and traditional gender role differences stated in general female students are more pessimistic about the future of the world and their future career. This finding is in line with the study of Jacobsen, Lee et al. (2014) which indicates males have higher optimism than females. Our findings are also similar, to the study of Schiff (2006) who says females try to be well prepared for their future. Also, female students' expectations about working from home were higher. Similarly, females' expectations about returning to natural life were higher. Another important finding of this study is that female students also engaged in physical and spiritual activities and social responsibility projects to keep them busy during the lockdown period more than male students. This result is consistent with the study of Fatmawati, Almigo, Maryam and Gani (2016) which states that coping strategies, efforts made by students to find a way out of the problems they face to adjust to change, of two genders are different.

#### **LIMITATIONS AND FUTURE RECOMMENDATIONS**

The study aims to contribute the gap by understanding the effects of Covid- 19 pandemic on university students' attitudes and expectations about their future. Yet, the study also has some limitations. During the pandemic process, we could only reach 299 students because it was not easy to reach students who were in their homes and had curfews. This is a limitation that harden the generalization of the results towards whole population. Even if the same conditions are not met, the study can be repeated with more students affected by lockdown. The study can be repeated in other countries to examine the effects of lockdown in different cultures. After the pandemic is over, study can be replicated so the results can be compared.

Another limitation could be the size of the questionnaires since we tried to keep them short and not included some items. For example, we avoided to ask about health and nutrition-based questions since the universities were closed and students were returned to their homes. It would be more of an interest if they lived alone in dormitory. We also did not include questions regarding social responsibility activities as restrictions during data collection period were the highest and there were prohibitions to leave the house. Therefore, new items can be added in the future.



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