

## **Assessment of Unemployment Anxiety and Influencing Factors in Pre-Service Teachers**

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### **Introduction**

In recent years, unemployment and unemployment anxiety have significantly increased, especially in Turkey. Most of the faculties of education in Turkey have different undergraduate programs, and these programs produce thousands of graduates every year. As the number of graduates increases yearly, so does the number of candidates for the KPSS. As the quota for the positions to be appointed is very low compared to the number of graduates, it becomes more and more difficult for pre-service teachers to be appointed every year. As a reflection of this, the majority of pre-service teachers, especially those who are still studying, experience unemployment anxiety from the pre-service period onwards. The problem of pre-service teachers not being appointed has turned into a vicious circle with the addition of thousands of new graduates every year to the existing pre-service teachers who have yet to be appointed despite the quota reductions for teacher recruitment. This situation causes an increase in the anxiety levels of both graduates and pre-service teachers who are still studying and causes them to be more pessimistic about their expectations for their professional future compared to previous years. In summary, due to many reasons, such as educational policies that lead to high quotas for almost all teaching fields without taking into account the supply-demand balance, unplaced graduates in different fields, the addition of tens of thousands of new teachers each year to the number of pre-service teachers who take the KPSS in the hope of being appointed, and policies to reduce quotas in appointments, pre-service teachers' chances of being appointed are decreasing and their anxieties about unemployment are increasing. The economic and political factors and educational policies that cause this situation are variables that pre-service teachers cannot control. Unemployment anxiety caused by these variables in pre-service teachers is not only an economic problem for pre-service teachers; it is a multifaceted phenomenon with personal, psycho-social components. For this reason, it is believed that examining the factors influencing unemployment anxiety and the effects of unemployment anxiety on pre-service teachers in this book chapter will help to understand this problem better.

### **Unemployment Anxiety**

Unemployment is defined as the absence of a continuous source of income that can ensure subsistence (Paul & Moser, 2006). Unemployment is defined as all persons not employed in the reference period who have used at least one of the job search channels to look for a job in the past three months and who can start work within two weeks (Turkish Statistical Institute [TÜİK], 2019). The fact that people are in a state of unemployment, or that they lack motivation to work, to look for a job, and qualifications that may be suitable for work, leads to the formation of anxiety in them. Anxiety is the state of restlessness and fear an individual feels in a disturbing and threatening situation (Yetişensoy & Şahin, 2020).

It is predicted that young people or groups of young people who experience unemployment anxiety, even during the education process they receive to get a job, will be more affected by unemployment and anxiety situations resulting from unemployment. Accordingly, they are more open to the risk of unemployment (Demirtaş & Kara, 2022b). Young people experience feelings of hopelessness, stress, anxiety, and helplessness in the face of unemployment and experience anxiety during the job search process (Akgün et al., 2007). Hammarström and Janlert (1997) examined anxiety and depressive symptoms of youth unemployment in a longitudinal study. In the study, individuals were interviewed in their last year of compulsory education, and the same individuals were interviewed again five years after their education. At the end of the study, it was found that there was an increase in anxiety symptoms among people who had experienced a long period of unemployment. At the same time, unemployment was found to be the most critical factor in the negative changes in the mental health of these individuals.

Unemployment anxiety is known to be one of the most common types of anxiety, especially among university students in Turkey (Kara et al., 2019). In Tayfun and Korkmaz's (2016) study, it was observed that there was an increase in unemployment anxiety among senior university students towards graduation and that the ego of students who thought they would be unemployed was negatively affected. This situation increased their anxiety levels. Pre-service teachers in different branches stand out as the segments that experience unemployment anxiety most intensely. Presently, the importance of preventing unemployment anxiety among pre-service teachers increases. This is because, in parallel with the reduction of unemployment anxiety, individuals' hopes of finding a job increase (Mohammed & Devecioglu, 2018), individuals experience less stress and depression (Tayfun & Korkmaz, 2016); career calling and career adaptability increase (Kara et al., 2019). In addition, individuals will have a more positive attitude towards the teaching profession (Yetişensoy & Şahin, 2020). As a result, it is predicted that conducting studies to prevent unemployment anxiety will significantly contribute to the mental development, economic income (Güney & Çelik, 2019; Ng et al., 2015), and career development of individuals.

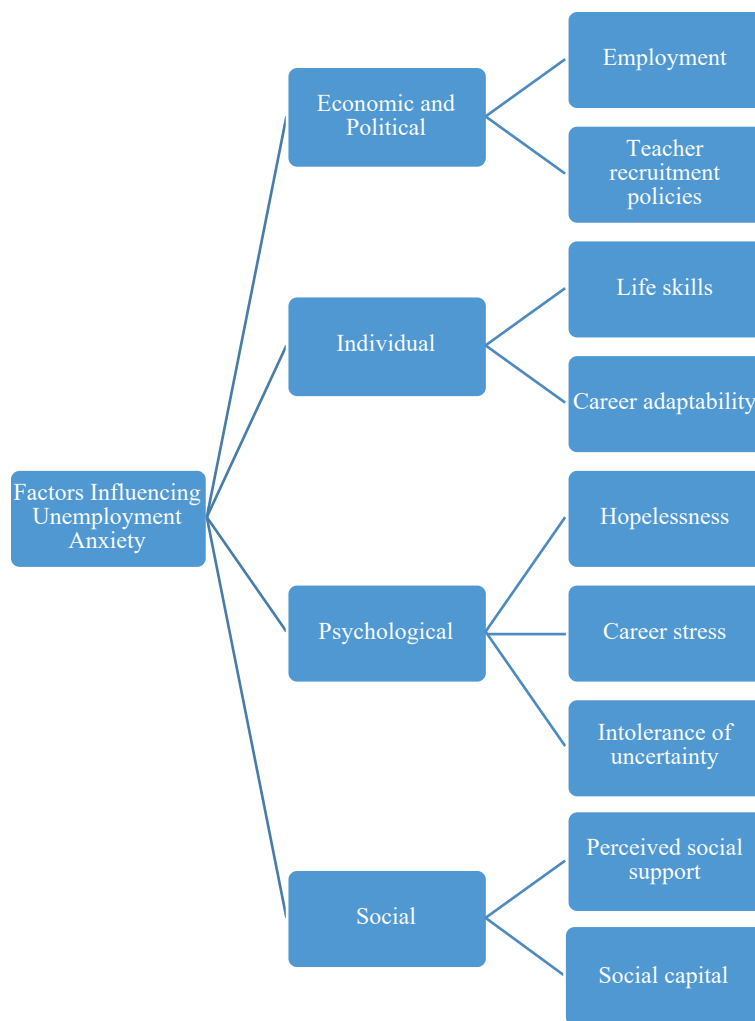
### **Factors Influencing Unemployment Anxiety**

Based on theoretical explanations and empirical studies, this book chapter has identified the factors influencing pre-service teachers' unemployment anxiety. These factors are economic and political (employment and teacher recruitment policies), individual (life skills, career adaptability), psychological (hopelessness, career stress, and intolerance of uncertainty), and sociological (perceived social support and social capital) (Figure 1).

#### **Economic and Political Factors**

##### ***Employment***

Economic growth and employment are two macroeconomic variables that determine the economic policies of many countries (Murat & Yılmaz-Eser, 2013). However, it is generally accepted in economic theory that economic growth in a country increases employment (Kreishan, 2011). Economic growth measures the ability of the economy to produce goods and services using existing resources such as capital and labor (Arı, 2016; Lozanoska & Dzambaska, 2014). Despite economic growth in many countries, from developed to developing countries, employment and unemployment have not increased or reduced as much as needed (Takım, 2010). While it is expected that there should be no unemployment problem in countries with high growth rates, it has been observed that this expectation has not been realized due to the multifaceted and complex structure of unemployment (Göktaş-Yılmaz, 2005).



**Figure 1.** Factors influencing unemployment anxiety

Turkey's economic growth and unemployment are similar to those of developing countries. It can be said that the studies examining the relationship between economic growth and unemployment in Turkey are not sufficient (Bağcı & Börü, 2018; Takım, 2010). In a study conducted by Göktaş-Yılmaz (2005), a unidirectional causality was observed from the unemployment rate to the growth rate, while no causality was found between the growth rate and the unemployment rate. In another study by Öztürk and Sezen (2018), econometric methods were used to analyze whether there is an inverse relationship between economic growth and unemployment in Turkey as in theory. As a result of the study, it was concluded that economic growth in Turkey reduced the unemployment rate during the period analyzed. Another study by Üzar and Akyazı (2018), covering the period 2000-2016, aimed to determine whether the causality relationship between economic growth and unemployment in 34 OECD countries is compatible with the information provided by economic theory. As a result of the study, a causality relationship was found between economic growth and unemployment and between unemployment and economic development. In this context, it can be said that growth and unemployment influence each other.

### ***Teacher recruitment policies***

Unemployment is one of the causes and consequences of poverty (Sodipe & Ogunrinola, 2011). In addition, unemployment causes various problems not only economically but also individually, psychologically, and sociologically. For this reason, policies to reduce unemployment are among the authorities' priorities (Arı, 2016).

Those with higher levels of education have also felt the negative impact of unemployment on the unemployed. The unemployment problem of graduates is deeply felt as a significant social problem. Unemployed teachers make up the largest proportion of the army of unemployed graduates. Factors such as economic ups and downs, government policies, budget allocations, the duration of compulsory education, the population at the age of mandatory education, and the number of teachers in the current system affect teacher employment (Lönnqvist, 2013).

From the beginning of the Republic until 1996, there was a continuous shortage of teachers. Attempts were made to overcome this shortage by training teachers who graduated from village institutes, by training teachers by letter, by accelerated training, and finally, in 1996, by appointing all graduates of faculties and colleges as classroom teachers (Akyüz, 2015). In Turkey, the condition of passing the Public Personnel Selection Examination (KPSS) has been required to appoint teachers since 2000. In 2023, 572,019 applicants applied for the examination, and 480,543 candidates took the examination. The total number of appointed positions for different branches was 45,000. For the 2024 KPSS Undergraduate Educational Sciences session, 526,947 candidates applied, and 475,624 took the exam (KPSS, 2024). However, in 2024, the total number of staff employed in different fields will be 20,000. In addition, according to the statistics of the Council of Higher Education (YÖK, 2024), our country has 97 active faculties of education. Apart from education faculties, many faculties (arts and sciences, engineering, theology, etc.) recruit certified teachers through pedagogical training programs. This situation means that many more university graduates than those trained and graduated by the faculties of education join the army of those waiting to be appointed as teachers. As a result, the employment problem of getting appointed as a teacher grows exponentially. In recent years, the issue of unappointed teachers has become one of the priority employment problems that must be solved. This situation requires government policy planning to reduce and prevent teacher unemployment.

## **Individual Factors**

### ***Life skills***

Life skills are defined as skills that can be learned and used in everyday life, enabling people to succeed in different environments (Danish et al., 2004). It is stated that these skills can facilitate the development of psychological skills needed in daily life (Papacharisis et al., 2005). Life skills improve the quality of life by enabling the individual to adapt to the environment in which he/she lives (Danish et al., 2004) and, at the same time, strengthen the individual's ability to meet the needs and demands of society (Prajapati, 2017). These skills are seen to be compatible with 21st-century skills and to support individuals in their daily lives. Life skills education is included in the education programs of different countries. However, it has been found that there are differences in life skills education between developing and developed countries (Nasheeda et al., 2019). In Turkey, analytical thinking, decision-making, creative thinking, entrepreneurship, communication, and teamwork skills are emphasized among life skills (MEB, 2018).

The literature shows that there is an indirect relationship between unemployment anxiety and life skills. In other words, there is a theoretical explanation for the ability to cope with stress and emotions, which are sub-dimensions of life skills and unemployment anxiety. For example, in the psychological model of unemployment, unemployment anxiety, experiencing stress, and being in a depressive mood are interrelated concepts. In this model, individuals are recommended to avoid stressful environments and use coping methods to solve the problem from different perspectives to reduce unemployment anxiety (Ergül, 2019). As a result, based on the above theoretical explanation and logical inferences, it can be said that life skills can be an individual variable that can positively contribute to combating unemployment anxiety.

### ***Career adaptability***

Finding a job matching young people's training is not always possible. In this case, individuals need skills to adapt to different conditions. One such skill is career adaptability. Career adaptability is a basic structure that includes attitudes, competencies, and behaviors necessary for young individuals to adapt to their jobs and changing business life in the career development process (Eryılmaz & Kara, 2020; Yousefi et al., 2011). This ability also includes critical skills that individuals should have in decision-making processes related to their work life and career (Demirtaş & Kara, 2022a; Duffy, 2010). Savickas and Porfeli (2012; 2013) discussed the sources of career adaptability in four dimensions: concern, control, curiosity, and confidence.

In Kara et al.'s (2019) study, the increase in the career adaptability of individuals reduces their unemployment anxiety. In Demirtaş and Kara's (2022b) study, increasing university senior students' career adaptability decreased their unemployment anxiety. Based on these findings, it is understood that career adaptability is a crucial individual structure in reducing unemployment anxiety.

### **Psychological Factors**

#### ***Hopelessness***

Hopelessness is defined as negative expectations about the future (Beck et al., 1974). According to Li et al. (2024), hopelessness refers to the negative feeling that results from the perception that the likelihood of change in the adverse outcomes experienced by the individual is low or irreversible. In the literature, there are studies on the relationship between hopelessness and unemployment anxiety.

In the study by Dinc et al. (2024), the mediating role of future anxiety was found to be significant in the effect of unemployment anxiety on levels of hopelessness in young adults. Yalçın (2022) emphasized that hopelessness and unemployment anxiety are related concepts among young adults. Karakus (2018) found that students' belief that they will have problems finding a job after graduation is an important predictor of the hopelessness they experience. Consequently, based on the studies above, it can be said that hopelessness is a psychological factor associated with unemployment anxiety.

#### ***Career stress***

Career stress is described as the stress associated with occupational problems such as uncertainty, employment pressure, conflict, and lack of information that individuals experience in their career development (Zhang et al., 2022). In other words, career stress is a negative situation that may arise during uncertainty or conflict in creating and developing an individual's career journey (Jung, 2020). Furthermore, career stress is a structure conceptualized with employment pressure, career ambiguity, external conflict, and lack of information (Özden & Sertel-Berk, 2017).

There is evidence in the literature of the relationship between career stress and unemployment anxiety. For example, Noor et al. (2024) reported that financial difficulties and economic threats caused stress among unemployed youth and job seekers. Demirtaş and Kara (2022b) found that career stress was an important psychological variable that predicted unemployment anxiety. Mamun et al. (2020) revealed that financial difficulties and threats experienced by unemployed youth increase their stress levels. As a result, in line with the above studies, it is considered that career stress is a psychological variable related to unemployment anxiety.



### ***Intolerance of uncertainty***

Intolerance of uncertainty is defined as the behavioral, emotional, and cognitive reactions that an individual develops against adverse events caused by daily uncertainty (Pan et al., 2024). According to Bird et al. (2024), intolerance of uncertainty is the tendency of an individual to react negatively to uncertain situations. Intolerance of uncertainty is classified as a structure including anticipatory and inhibitory anxiety components (Sarıçam et al., 2014).

When the literature is examined, findings indicate the relationship between intolerance of uncertainty and unemployment anxiety. For example, the findings of Ayhan et al. (2022) and Li et al. (2012) showed that there is a positive relationship between intolerance of uncertainty and unemployment anxiety, and the findings of Chen and Zeng (2021) showed that intolerance of uncertainty is an important predictor of unemployment anxiety. In conclusion, based on these findings, intolerance of uncertainty has been proven to be a psychological variable associated with unemployment anxiety.

### **Social Factors**

#### ***Perceived social support***

Perceived social support refers to the extent to which an individual perceives his/her social network (family, friends, and important social people) as supportive when he/she needs help (Safi et al., 2024). Perceived social support is the level of help, attention, and respect a person perceives from the social system (family, friends, and important others, etc.) (Yuan et al., 2024).

There are studies in the literature emphasizing that perceived social support is effective in reducing unemployment anxiety. To make this more concrete, Brimah et al. (2021) emphasized that social support is an important protective factor that reduces unemployment; Milner et al. (2016) reported that unemployed workers with high social support felt better psychologically than those without. Lorenzini and Giugni (2010) stated that social support is vital in young people's coping with unemployment. Consequently, based on the studies mentioned above, it can be said that perceived social support is a social factor that has a protective function in reducing unemployment anxiety.

#### ***Social capital***

Social capital is the sum of the actual or potential resources an individual can access and mobilize based on their membership in a social network (Chen & Li, 2024). According to Hmimou et al. (2024), social capital refers to a set of potential resources connected and accessible based on the individual's social network. McArdle et al. (2007) state that social capital is the employability aspect of an individual's interpersonal connections (knowing who they know) relevant to their career.

When the literature is reviewed, some studies show that social capital effectively reduces unemployment anxiety. For example, Guney and Celik (2019) determined that as individuals' social capital levels increase, their unemployment anxiety decreases. Hmimou et al. (2024) emphasized the effect of social capital on an individual's likelihood of finding a job. In addition, it was underlined that social capital is an important social variable in shaping the individual's self-perception, providing access to career-related information and resources, and reducing the negative consequences of unemployment (McArdle et al., 2007). As a result, based on the studies above, it is understood that social capital is a protective social variable associated with unemployment anxiety.

## Conclusion

In this book section, the unemployment anxiety of pre-service teachers is evaluated multidimensionally from economic, political, individual, psychological, and sociological perspectives. In this book section, the factors influencing pre-service teachers' unemployment anxiety are determined in line with the literature's theoretical explanations and empirical studies. In this context, economic and political factors (employment and teacher recruitment policies), individual factors (life skills, career adaptability), psychological factors (hopelessness, career stress, and intolerance of uncertainty), and sociological factors (perceived social support and social capital) are discussed.

Based on the theoretical knowledge and empirical research findings included in this book chapter, some suggestions can be developed to prevent the unemployment anxiety of pre-service teachers. These suggestions can be listed as follows:

- Pre-service teachers can decrease unemployment anxieties by using career adaptability skills such as career planning, exploration, control, and confidence.
- Pre-service teachers can reduce unemployment anxieties by developing life skills such as communication, interpersonal relations, empathy, and self-awareness.
- Pre-service teachers can decrease unemployment anxieties by regulating negative emotions such as fear, stress, pessimism, and hopelessness.
- Pre-service teachers can reduce unemployment anxieties by discovering social support resources related to their career development and using them in their social capital.

As a result, pre-service teachers' individual, psychological, and sociological empowerment can facilitate their awareness of career opportunities in their environment and increase their chances of being employed in public and private educational institutions by improving their self-confidence and self-esteem.

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## References

- Arı, A. (2016). An analysis of the relationship between the economic growth and unemployment in Turkey: A new cointegration test. *Research Journal of Politics, Economics and Management*, 4(2), 57-67.
- Ayhan, D., Seki-Öz, H., & Bingöl, U. (2022). The impact of intolerance to uncertainty on unemployment anxiety in nursing students during pandemic: Role of resilience. *Gevher Nesibe Journal of Medical & Health Sciences*, 7(18), 12-24. <http://dx.doi.org/10.46648/gnj.366>
- Bağcı, E., & Börü, M. K. (2018). Relationship between economic growth and unemployment: An econometric analysis in Turkey. *International Journal of Academic Value Studies (JAVStudies)*, 4(22), 890-897
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology*, 42(6), 861-865. <https://doi.org/10.1037/h0037562>

- Bird, S., Moid, L. A. E., Jones, C. A., & Surtees, A. D. (2024). The relationships between restrictive/repetitive behaviours, intolerance of uncertainty, and anxiety in autism: A systematic review and meta-analysis. *Research in Autism Spectrum Disorders*, 117, 102428. <https://doi.org/10.1016/j.rasd.2024.102428>
- Brimah, B. A. P., Olanipekun, W. D. P., Abu, Z. P., & Awe, O. I. (2021). Evaluation of youth employment and social support operation programme on unemployment reduction in ilorin metropolis. *University Journal of Management and Social Sciences (HUJMSS)*, 3(1), 142-150.
- Chen, L., & Zeng, S. (2021). The relationship between intolerance of uncertainty and employment anxiety of graduates during COVID-19: The moderating role of career planning. *Frontiers in Psychology*, 12, 694785. <https://doi.org/10.3389/fpsyg.2021.694785>
- Chen, M., & Li, W. (2024). Social capital development on interest-based networks: examining its antecedents, process, and consequences. *Humanities and Social Sciences Communications*, 11(1), 1-10. <https://doi.org/10.1057/s41599-024-02609-1>
- Danish, S., Forneris, T., Hodge, K., & Heke, I. (2004). Enhancing youth development through sport. *World Leisure Journal*, 46(3), 38-49. <https://doi.org/10.1080/04419057.2004.9674365>
- Demirtaş, A. S., & Kara, A. (2022a). Cognitive control and flexibility as predictor of career adaptability in emerging adults. *Kastamonu Education Journal*, 30(2), 390-397. <https://doi.org/10.24106/kefdergi.803515>
- Demirtaş, A. S., & Kara, A. (2022b). Career adaptability and unemployment anxiety in Turkish senior undergraduate students: The mediating role of career stress. *Turkish Psychological Counseling and Guidance Journal*, 12(64), 19-33. <https://doi.org/10.17066/tpdrd.1095894>
- Dinc, M. S., Super, J. F., Kuzey, C., & Güngörmüş, A. H. (2024). The impact of unemployment anxiety of young adults on their hopelessness level: Mediating role of future anxiety. *Journal of East-West Business*, 1-31. <https://doi.org/10.1080/10669868.2024.2415028>
- Duffy, R. D. (2010). Sense of control and career adaptability among undergraduate students. *Journal of Career Assessment*, 18(4), 420-430. <https://doi.org/10.1177/106907271037458>
- Ergül, E. (2019). *Unemployment anxiety and working life perception of higher education youth: An application on Eurasia university student* [Unpublished doctoral dissertation]. University of Avrasya.
- Eryılmaz, A., & Kara, A. (2020). Investigation of the effectiveness of career adaptability psycho-education program on career adaptability levels of students. *Hacettepe University Journal of Education*, 35(4), 733-745. <https://doi.org/10.16986/HUJE.2019050340>
- Göktaş-Yılmaz, Ö. (2005). Causality relationship between growth and unemployment rates in Turkish economy. *Istanbul University Econometrics and Statistics e-Journal*, (2), 63-76.
- Guney, A., & Celik, E. (2019). Relationship between social capital and unemployment anxiety: An application on last class students at Atatürk university faculty of economics and administrative sciences. *Istanbul Journal of Economics*, 69(1), 103-131. <https://doi.org/10.26650/ISTJECON2019-0005>
- Hammarström, A., & Janlert, U. (1997). Nervous and depressive symptoms in a longitudinal study of youth unemployment—selection or exposure?. *Journal of adolescence*, 20(3), 293-305. <https://doi.org/10.1006/jado.1997.0086>
- Hmimou, A., Kaicer, M., & El Kettani, Y. (2024). The effects of human capital and social capital on well-



- being using SEM: Evidence from the Moroccan case. *Quality & Quantity*, 58(4), 3107-3131. <https://doi.org/10.1007/s11135-023-01794-6>
- Jung, Y. M. (2020). Nursing students' career identity, satisfaction with major, and career stress by career decision type. *Japan Journal of Nursing Science*, 17(1), e12281. <https://doi.org/10.1111/jjns.12281>
- Kara, A., Altınok, A., & Şahin, C. (2019). Career adapt-abilities and career calling as a predictor of unemployment concerns for university senior grade students. *MANAS Journal of Social Studies*, 8(3), 2294-2307. <https://doi.org/10.33206/mjss.533767>
- Karakus, Ö. (2018). Depression and hopelessness levels of university students according to their opinions on finding employment or falling out of labor force in Turkey. *Universal Journal of Educational Research*, 6(1), 190-194. <https://doi.org/10.13189/ujer.2018.060120>
- KPSS (2024). *KPSS undergraduate candidate numbers by sessions*. [https://dokuman.osym.gov.tr/pdfdokuman/2024/KPSS/LISANS/sayisalbilgiler\\_kid23082024.pdf](https://dokuman.osym.gov.tr/pdfdokuman/2024/KPSS/LISANS/sayisalbilgiler_kid23082024.pdf)
- Kreishan, F. M. (2011). Economic growth and unemployment: An empirical analysis. *Journal of Social Sciences*, 7(2), 228-231.
- Li, L., Zhong, Y., Liang, S., & Quan, P. (2024). Gender differences in sleep latency between low and high hopelessness individuals. *Current Psychology*, 1-11. <https://doi.org/10.1007/s12144-024-06804-w>
- Li, Z., Wu, M., Tao, L., & He, X. (2012). Relationships between self-esteem, intolerance of uncertainty, career decision-making difficulties and job anxieties. *Chin. J. Clin. Psych*, 20, 564–566.
- Lorenzini, J., & Giugni, M. (2010). Youth coping with unemployment: The role of social support. *Revue Suisse de Travail Social*, 11, 80-99
- Lozanoska, A., & Dzambaska, E. (2014). Economic growth and unemployment: An empirical analysis (A case study on the republic of Macedonia). *Economic Development/Ekonomiski Razvoj*, 16(3), 153-169.
- Lönnqvist, A. (2013, April 19). Teacher Projections and Employment. *Paper presented at the meeting of MEB Teacher Projections*, Ankara.
- Mamun, M. A., Akter, S., Hossain, I., Faisal, M. T. H., Rahman, M. A., Arefin, A., ... & Griffiths, M. D. (2020). Financial threat, hardship and distress predict depression, anxiety and stress among the unemployed youths: A Bangladeshi multi-city study. *Journal of Affective Disorders*, 276, 1149-1158. <https://doi.org/10.1016/j.jad.2020.06.075>
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, 71(2), 247-264. <https://doi.org/10.1016/j.jvb.2007.06.003>
- Ministry of National Education [MiNE]. (2018). *Primary education institutions (primary schools and secondary schools) science course (3rd, 4th, 5th, 6th, 7th and 8th grades) curriculum*. Ankara: Ministry of National Education, Board of Education and Training.
- Milner, A., Krnjacki, L., Butterworth, P., & LaMontagne, A. D. (2016). The role of social support in protecting mental health when employed and unemployed: A longitudinal fixed-effects analysis using 12 annual waves of the HILDA cohort. *Social Science & Medicine*, 153, 20-26. <https://doi.org/10.1016/j.socscimed.2016.01.050>

- Mohammed, S. A., & Devecioglu, S. (2018). Unemployment anxiety of student taking sports education in university. *Journal of Education and Training Studies*, 6(7), 17-27.
- Murat, S., & Yilmaz-Eser, B. (2013). The relationship between economic growth and employment in Turkey: The validity of jobless growth phenomenon. *Hak İş International Labor and Society Magazine*, 2(3), 92-123.
- Nasheeda, A., Abdullah, H. B., Krauss, S. E., & Ahmed, N. B. (2018). A narrative systematic review of life skills education: effectiveness, research gaps and priorities. *International Journal of Adolescence and Youth*, 24(3), 362–379. <https://doi.org/10.1080/02673843.2018.1479278>
- Ng, J., Ranasinghe, T., Shi, G., & Yang, H. (2015). Income smoothing due to unemployment concerns. *Singapore Management University School of Accountancy Research*. <http://dx.doi.org/10.2139/ssrn.2528972>
- Noor, R., Sultan, S., & Salman, R. (2024). Psychological health of unemployed young jobseekers: Roles of financial hardship, economic threat, and parental pressure. *Bulletin of Business and Economics (BBE)*, 13(2), 595-598. <https://doi.org/10.61506/01.00367>
- Özden, K., & Sertel-Berk, Ö. (2017). Reliability and validity study of Turkish version of the Korean Career Stress Inventory (KCSI). *Studies in Psychology*, 37(1), 35-51. <http://dergipark.gov.tr/iupcd>
- Öztürk, S., & Sezen, S. (2018). Analysis of the relationship between economic growth and unemployment: The case of Turkey. *Mustafa Kemal University Journal of Social Sciences Institute*, 15(41), 1-14.
- Pan, L., Qiu, W., Hu, Z., & Li, J. (2024). Intolerance of uncertainty and internet addiction among college students in China post-pandemic era: The mediating role of future anxiety. *Scientific Reports*, 14(1), 20098. <https://doi.org/10.1038/s41598-024-70988-1>
- Papacharisis, V., Goudas, M., Danish, S. J., & Theodorakis, Y. (2005). The effectiveness of teaching a life skills program in a sport context. *Journal of Applied Sport Psychology*, 17(3), 247-254. <https://doi.org/10.1080/10413200591010139>
- Paul, K. I., & Moser, K. (2006). Incongruence as an explanation for the negative mental health effects of unemployment: Meta-analytic evidence. *Journal of Occupational and Organizational Psychology*, 79(4), 595–621. <https://doi.org/10.1348/096317905X70823>
- Prajapati, R. K., Sharma, B., & Sharma, D. (2017). Significance of life skills education. *Contemporary Issues in Education Research*, 10(1), 1-6. <https://files.eric.ed.gov/fulltext/EJ1126842.pdf>
- Safi, F., Areshtanab, H. N., Ghafourifard, M., & Ebrahimi, H. (2024). The association between self-efficacy, perceived social support, and family resilience in patients undergoing hemodialysis: A cross-sectional study. *BMC Nephrology*, 25(1), 207. <https://doi.org/10.1186/s12882-024-03629-4>
- Sarıçam, H., Erguvan, F. M., Akın, A., & Akça, M. Ş., (2014). The Turkish short version of the Intolerance of Uncertainty (IUS-12) Scale: The study of validity and reliability. *Route Educational and Social Science Journal*, 1(3), 148-157. <http://doi.org/10.17121/ressjournal.109>
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Sodipe, O. A., & Ogunrinola, O. I. (2011). Employment and economic growth nexus in Nigeria. *International Journal of Business and Social Science*, 2(11), 232-239.

- Takım, A. (2010). The relation between economic growth and unemployment in Turkey: Granger Causality Test. *Dumlupınar University Journal of Social Sciences*, (27), 1-8.
- TÜİK (2019). *Household labor force statistics bulletin*. <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30687>.
- Üzar, U., & Akyazı, H. (2018). Econometric Analysis of the relationship between economic growth and unemployment at the OECD countries. *Cumhuriyet University Journal of Economics and Administrative Sciences*, 19(2), 463-479.
- Yalçın, Y. G. (2022). Unemployment anxiety and hopelessness in university students. *Journal of Education and Recreation Patterns*, 3(2), 130-146. <https://doi.org/10.53016/jerp.v3i2.67>
- Yetişensoy, O., & Şahin, İ. F. (2020). Investigation of the relationship between social studies teacher candidate's unemployment worries and their attitudes toward teaching profession. *Hacettepe University Journal of Education*, 35(3), 627-643.
- Yousefi, Z., Abedi, M., Baghban, I., Eatemadi, O., & Abedi, A. (2011). Personal and situational variables, and career concerns: Predicting career adaptability in young adults. *The Spanish Journal of Psychology*, 14(1), 263-271. [https://doi.org/10.5209/rev\\_SJOP.2011.v14.n1.23](https://doi.org/10.5209/rev_SJOP.2011.v14.n1.23)
- Yuan, Z., Li, W., Ding, W., Song, S., Qian, L., & Xie, R. (2024). Your support is my healing: The impact of perceived social support on adolescent NSSI—a sequential mediation analysis. *Current Psychology*, 43(1), 261-271. <https://doi.org/10.1007/s12144-023-04286-w>
- YÖK (2024). *Higher education information system*. <https://istatistik.yok.gov.tr/>
- Zhang, Z., Yu, X., & Liu, X. (2022). Do I decide my career? Linking career stress, career exploration, and future work self to career planning or indecision. *Frontiers in Psychology*, 13, 997984. <https://doi.org/10.3389/fpsyg.2022.997984>

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