Employment Status and Suicide Risk: The Role of Problem-Solving, Social Support, and Attribution Style

by

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To my biggest supporters; Mom and Dad. You are the reason for all my accomplishments.

En büyük destekçilerim olan Annem ve Babam'a. Tüm başarılarım sizin sayenizde.

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Koç University

Graduate School of Social Sciences and Humanities

This is to certify that I have examined this copy of a master's thesis by

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and have found that it is complete and satisfactory in all respects,

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Abstract

Suicide is a serious public health problem that interests many, and unemployment is one of the predictors of suicide risk among most age groups. The relationship between unemployment and suicide risk has been investigated for many years, yet the protective factors seem relatively understudied. The present study investigated the role of social problem-solving skills, perceived social support, and attribution style to unemployment in the relationship between suicide risk in the unemployed. Data were collected from 576 Turkish participants (243 employed and 333 unemployed) through an online survey. All participants were consenting adults above 18 years of age who are either full-time employed or unemployed and looking for a job. The demographic form, Multidimensional Scale of Perceived Social Support (MSPSS), Social Problem-Solving Inventor (SPSI), Attribution of Unemployment Scale (AUS), and Suicide Probability Scale (SPS) were used to collect in the data collection process. Hayes' PROCESS Macro Model 5 was used to test the association between variables. Results indicated that unemployment status significantly predicted higher suicide risk, lower perceived social support, and inadequate problem-solving skills. Perceived social support and social problem-solving skills mediated the relationship between employment status and suicide risk. Attribution style was expected to moderate the relationship between employment status and suicide risk; however, the data did not support this anticipation. Based on these findings, it can be concluded that perceived social support and problem-solving skills can be protective factors against suicide risk in the unemployed population.

Keywords: suicide risk, unemployment, social support, social problem solving, attribution of unemployment

Özet

İntihar birçok kişiyi ilgilendiren ciddi bir halk sağlığı sorunudur ve işsizlik çoğu yaş grubu için intihar riskinin belirleyicilerinden biridir. İşsizlik ve intihar riski arasındaki ilişki yıllardır araştırılmaktadır, ancak intihar riskine karşı koruyucu faktörlerin etkisi nitekim daha az ele alınmıştır. Bu çalışmanın amacı, sosyal problem çözme becerileri, algılanan sosyal destek ve işsizliğe atıf tarzının çalışma durumu ve intihar riski arasındaki ilişkisinde rolünü incelemektir. 243'ü çalışan ve 333'ü işsiz olmak üzere toplam 576 Türk katılımcının verileri çevrimiçi bir anket aracılığıyla toplanmıştır. Tüm katılımcılar, ya tam zamanlı çalışan ya da işsiz olan ve iş arayan 18 yaş üstü yetişkinlerdir. Veri toplama aracı olarak demografik form, Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ), Sosyal Sorun Çözme Envanteri (SSÇE), İşsizliği Atfetme Ölçeği (İAÖ) ve İntihar Olasılığı Ölçeği (İOO) kullanılmıştır. Değişkenler arasındaki ilişkiyi göstermek için Hayes PROCESS Macro Model 5 kullanılmıştır. Sonuçlar, işsizliğin daha yüksek intihar riskini, daha düşük algılanan sosyal desteği ve yetersiz problem çözme becerilerini önemli ölçüde yordadığını göstermiştir. Elde edilen bulgular algılanan sosyal destek ve sosyal problem çözme becerileri, istihdam durumu ile intihar riski arasındaki ilişkiye aracılık ettiğini göstermektedir. İşsizliğe atıf biçimi, çalışma durumu ve intihar riski arasındaki ilişkiyi beklenenin aksine anlanlı derecede etkilememiştir. Bulgular göz önüne alındığında, algılanan sosyal destek ve problem çözme becerilerinin işsiz popülasyonda intihar riskine karşı koruyucu faktörler olabileceği sonucuna varılabilir.

Anahtar Sözcükler: intihar riski, işsizlik, sosyal destek, sosyal problem çözme, işsizliğin atfedilmesi

1

INTRODUCTION AND LITERATURE REVIEW

1.1 General Introduction

Suicide is one of the leading causes of death, especially among young adults. According to World Health Organization (WHO), in 2019, for the age group 15-29, suicide was the fourth leading cause of death. It was estimated that more than 700.000 people die by suicide annually, and much more attempt suicide (WHO, 2021). Suicidal behaviors affect the afflicted individual and those around them, such as family members, friends, communities, etc. Understanding the dynamics behind suicidal behavior has been a topic of interest for researchers and practitioners alike. It has not only been a hot topic for psychology and psychiatry but also for public health (Knox et al., 2004), economics (Marcotte, 2003), and sociology (Mueller et al., 2021). Suicide has been explored through many models and theories. However, there is still no consensus on what exactly causes suicide, how it occurs, and what might be the protective factors since it is a very personal topic open for subjective discussion and can be shaped through personal experiences (De Leo et al., 2006).

Economic burden and unemployment have influenced suicidal behavior (Ceccherini-Nelli & Priebe, 2010). Studies on financial burden propose that personal (individual) economic difficulties and global economic crises impact psychological well-being and suicide risk (Deveci et al., 2004; Stuckler et al., 2009). To better understand the relationship between risk for suicidal behavior and economic burden,

some variables' mediating and moderating roles might prove beneficial. The influence of perceived social support (Faria et al., 2020), attribution style (Feather & Davenport, 1981), and social problem-solving skills on suicide risk are relatively understudied variables that may shed light on the association of employment status and economic burden with the chance for suicide. Accordingly, the current study investigates the mediating role of perceived social support and social problem-solving skills and the moderating role of attribution style in the relationship between employment status and suicide risk.

1.2 Theoretical Framework

1.2.1 Suicide: Definition and Prevalence

Suicide is the lethal self-injurious behavior to die (Turecki & Brent, 2016). More than 700.000 people die by suicide each year, making suicide one of the leading causes of death (WHO, 2021). However, death by suicide still has significant stigmatization across cultures (Feigelman et al., 2009); thus, WHO suicide mortality rates can be miscoded and misreported. Suicidal ideation and attempts have much more dramatic rates when compared to completed suicide. The Substance Abuse and Mental Health Services Administration (SAMHSA) (2019) has reported that nearly 5% of the adult American population had severe suicidal ideation in 2019, with most of the prevalence observed in young adults. Low- and middle-income countries account for almost 80% of the worldwide suicide mortality rate (WHO, 2021), which directs attention to the relationship between suicide, suicidal ideation, and income. However, interestingly, official records indicate that the rate of suicidal death in Turkey is relatively low compared to other countries, with 4.04 deaths per 100,000 (TUİK, 2019).

World Health Organization defines suicide as injuring oneself with the intent to die (WHO, 2021). Suicidal behavior, on the other hand, refers to a set of behaviors; passive suicide ideation, active suicide ideation, a suicide plan, an intention to prosecute agenda, and a suicide attempt (Castle & Kreipe, 2007). Suicidal ideation is a strong predictor of a suicide attempt. In the literature review, it was seen that suicidal ideation accounts for the behaviors and thoughts regarding intentions to die, whereas suicide attempt accounts for the self-injurious behaviors with an intent to end one's life (Nock & Kresler, 2006; Nock et al., 2008). Passive suicidal ideation is the desire to end one's life without making a fully structured conscious plan. Active suicidal ideation is when the person plans the suicide attempt, including the date, time, method, etc., for completing a suicide attempt and ending their own life (Liu, Bettis, & Burke, 2020). With different definitions of understanding suicide, researchers working on the subject now consider suicide as a process rather than a single action (Runeson et al., 1996; De Leo et al., 2005; Wasserman et al., 2008)

World Health Organization state that for every death by suicide, many more people have attempted suicide or have suicidal ideation. Suicide was the fourth leading cause of death among young adults aged 15-29 in 2019 (WHO, 2020). Seventy-seven percent of recorded suicides occur in low and middle-income countries (WHO, 2020), which inevitably directs attention to the relationship between economic difficulties and suicide. When global suicides are investigated, it is estimated that most suicide methods include pesticide self-poisoning, hanging, and firearms (Ajdacic-Gross et al., 2008)

Turkish Statistical Institute publishes the "Death Statistics" bulletin every year, including deaths and causes of death (heart, accident, suicide, etc.). To better understand the current standing of suicide in Turkey, examining data from different years is

necessary. Therefore, suicide rates, death numbers, the impact of; age, sex, level of education, and cause for suicide will be explained through comparative data. TUİK provides an “annual crude suicide rate,” which refers to the number of incidences per hundred thousand population and the number of suicides detailed with age, sex, method, etc. According to TUİK (2023), the number of suicide cases has increased over the years. In 2010, 2933 suicides were counted; in 2015, 3.246 people; in 2020, 3.703 people; and in 2021, 4.158 people died by suicide in Turkey.

In 2021, the cause of suicide of 20.4% of the individuals who committed suicide could not be determined. Of the suicides with a known cause, illness has the highest portion, with 26.11%, followed by economic problems at 7.8%. Before 2006, family incompatibility was higher when explaining the causes of suicide incidences; however, after 2006, financial issues became more influential on such behavior (TUİK, 2007; TUİK, 2023). Gender plays a vital role in defining the causes; suicides among women are more attributed to “illness,” “family incompatibility,” and “emotional relationships and not marrying the person wanted,” whereas suicides among men are attributed more to “illness,” “economic problems” and “family incompatibility” respectively (TUİK, 2023).

WHO (2021) states that people between the age of 15-39 are at the highest risk for suicide. Findings are similar for Turkey; in 2021, 53.6% of people who died by suicide were between the age of 15-39. Economic burden a much higher for the cause of suicide for ages between 20 and 49.

Gender is important because the incidence of suicidal behavior differs significantly between men and women (WHO, 2020; TUİK, 2023). Literature and official suicide statistics show that the number of death incidences due to suicide is

higher among men across all age groups. In 2021, among all completed suicides, 77.8% of the incidences were conducted by men in Turkey (TUİK, 2023). Even if the percentages change, the higher ratio of male suicides is consistent throughout the years. These sex differences in suicide incidences are similar in other countries (WHO, 2019). However, even if the completed suicide rate is higher among men, the suicide attempt is predicted to be higher among women (Davison & Neale, 2004; Akçay & Taşkın, 2019). A 4-year longitudinal study conducted in Ankara, the capital of Turkey, showed that among all the suicide attempts in specified years, 70% of the attempters were women (Devrimci-Ozguven & Sayıl, 2003). Studies show several reasons for higher completion of suicidal behavior among men, the most common explanation being the method of use. Methods of suicide can vary across age groups and cultures; however, some common methods are; hanging, taking chemicals, throwing self from a high place, drowning, using firearms, burning, using a sharp instrument, using natural gas, or throwing self-off a motorized vehicle. Men tend to use more lethal suicide methods, leading to a higher certainty of death, such as hanging or firearms, whereas women prefer drug inducement (McAndrew & Garrison, 2007).

The influence of education level on suicide has changed over the years. Until 2013, most deaths by suicide were conducted by people who had completed primary school or lower level. However, after 2013, statistics show an increase in the number of deaths by suicide among people who have graduated from high school and a decrease in primary-school graduates (TUİK, 2023). In 2013, the distribution of suicide at the education level was 6.5% for junior high school graduates, 13% for high school graduates, and 8.2 for higher-level graduates. Whereas in 2021, it was seen that 25.7% of those who committed suicide were junior high school graduates, 26.1% were high school graduates, and 14.9% were higher level (university or higher) graduates. In the

following section, the theories and different perspectives for explaining the rationale behind suicide will be presented to understand the given data better.

1.2.2 Theories of suicide: Biological perspective

Suicide is a multidimensional construct that cannot be solely explained through one perspective. Understanding suicide from a biological perspective draws attention to two main hypotheses. One focuses on the genes and how suicide risk can be transmitted through generations, whereas the other focuses on the biochemical imbalances within the body that may influence suicide risk (Roy, 1992).

Researchers investigating the influence of genes on suicide risk have conducted considerable research throughout the years, and most of them concluded that suicide risk is higher among people who have a relative who has committed suicide (DeCantanzaro, 1980). A study conducted by Baldessarini and Hennen in 2004 with over 20 families included showed that people with suicidal relatives are five times more likely to engage in suicidal behavior. In the same study, researchers also examined the differences in suicide risk among identical and fraternal twins. They concluded that identical twins are at greater risk if a co-twin is suicidal.

On the other hand, some researchers base their arguments on biochemical variations in the body when explaining suicide. Biologically based explanations of suicides focus primarily on serotonin levels in the body (Nordström et al., 1994). Research in the field has shown that serotonin levels are significantly lower in participants with suicidal behavior when compared to non-suicidal participants (Stockmeier, 1997).

Both models for explaining suicide lack the importance of environmental factors yet give a clue on what may have been an influence.

1.2.3 Theories of suicide: Psychological Perspective

Although the biological perspectives light up the way to understand suicide, the psychological stand may be the most influential among all other views. Suicide can be explained through Freud's (1920) psychodynamic theory, Baumeister's (1990) escape theory, Beck's (1990) cognitive model of suicide, Schotte and Clum's (1987) diathesis-stress theory, and Joiner's (2005) interpersonal psychological theory of suicide. For the sake of this thesis and simplicity, only the approaches that help to understand the study model will be discussed further.

Baumeister's (1990) suicide as an escape from the self-theory argues that people tend to escape from themselves as their negative self-evaluation increases. Suicide tends to be the escape option for people who have lost themselves in great pain and suffering with no hope of being better. Baumeister (1990) explains suicide through several steps: a person realizes that they have not acquired any accomplishments, then attribute the failure to themselves, such as "I am such a failure, I cannot do anything!". As the person realizes their failure and attributes it to themselves, their negative self-evaluation increases, leading to higher levels of depression and anxiety; as the final step increases, depression and anxiety create a cognitive deconstruction (Baumeister, 1990) through which the person becomes prone to suicide.

The diathesis-stress model of suicidal behavior (Schotte & Clum, 1987) argues that everyone possesses a certain predisposition level for developing psychiatric disorders or suicidal behavior. However, there are some determinants of whether a person develops a disorder and commits suicide (Monroe & Hadjiyannakis, 2022). Theorists indicate that negative problem-solving orientations, especially under stressful life circumstances, can contribute to the predisposed risk of psychiatric disorders, especially depression and suicidal behavior. The level of stress determines the suicide

risk the event causes as well as the inadequacy in problem-solving abilities (Schotte & Clum, 1987).

The Interpersonal Theory of Suicide Model (Joiner, 2005) suggests that the desire for suicidal desire emerges from thwarted belongingness, a psychologically challenging state in which the basic need for connecting with others is unmet, and high levels of burden a person perceived to put upon others. However, suicidal desire does not result in a suicide attempt unless the person has the acquired capability for suicide. Joiner (2005) defines acquired capability as fearlessness and decreased pain sensitivity, disregarding the menacing presence of suicidal thoughts and actions. Theory indicates that when the level of burdensomeness is high, thwarted belongingness is present, and the person has the capacity and accessibility to lethal methods, there could be an extreme risk of suicide.

1.2.4 Theories of suicide: Sociological Perspective

Emile Durkheim is one of the first sociologists to investigate the social dynamics of suicide. Unlike the psychological theories of suicide discussed above, Durkheim's views on suicide explain the phenomenon not through individuals but rather through social and structural frameworks across time and culture (Stanley et al., 2016). Durkheim (1897) proposes his theory of suicide through two main concepts: social integration and moral regulation. Social integration refers to becoming emotionally, structurally, and physically intimate with the community. Social integration can occur with the help of social status, economic status, presence in social gatherings, emotional gatherings, and so on. (Durkheim, 1897). Moral regulation refers to a person's need to be regulated by society. Through moral code, a person's irrational needs and expectations are held (Durkheim, 1897). Durkheim concluded that if the

person is not socially integrated into the community and lacks moral and social regulation from society, they tend to withdraw from others, leading to feelings of meaninglessness. The sense of meaninglessness contributes to the main factors of suicide: hopelessness, depression, and loneliness (Van Orden et al., 2010).

1.3 Suicide and Unemployment: Associated Constructs

In this section, the variables within the model will be explained in relation to suicide risk. Theoretical information about employment status (independent variable), perceived social support (mediator), social problem-solving skills (mediator), and attribution style (moderator) will be presented, and research findings linking them with suicidal behavior will be addressed.

1.3.1 Unemployment and suicide

Unemployment is defined as having the availability and capacity to obtain a job and having attempted to find a job but did not achieve it (OECD, 2021). In 2020, with the SARS-CoV-2 global pandemic, unemployment rates significantly increased compared to previous years. The total percentage of reported global unemployment has hit its highest value in 2020, at 6.5%, since 1991 (ILO, 2021). The case, unfortunately, has been the same for Turkey as well. The unemployment rate was at its highest at 13.9.% in 2019 for the last ten years (TÜİK, 2020) and 13.1% in 2020 (TÜİK, 2021). Unemployment in the youthful population, aged between 15-24, is much higher, with 25.3% in 2020 (TÜİK, 2021). It should be noted that only the registered unemployed has been included in the presented ratios. Thus, the actual unemployment rates can be higher than those made public.

Unemployment significantly impacts psychological well-being since it, directly and indirectly, relates to psychological states such as stress, self-esteem, hopelessness, depression, and suicidal behavior, especially when the unemployment is involuntary and prolonged (Guindon & Smith, 2002; Chan et al., 2007). Unemployment can be damaging to psychological well-being for several reasons besides financial deprivation. First, employment provides people with an identity formation (Luyckx et al., 2008), especially for young adults. Second, work offers people opportunities for social gatherings and social inclusion in a community (Evans & Repper, 2000). Third, employment help establishes a social validation in the community; the unemployed are more likely to be discriminated against, stigmatized, and devalued (Harvey et al., 2009; Karren & Sherman, 2012). The relationship between unemployment and suicide risk has been investigated in different populations, across cultures, and over time. Financial difficulties due to unemployment have been shown to influence mental and physical health and suicidal behavior strongly (Ceccherini-Nelli & Priebe, 2010). A longitudinal study including 63 countries investigated the relationship between unemployment and suicides through the 2008 financial crisis and concluded that with the escalation of economic crises, suicide rates had increased as much as 12.5% (Nordt et al., 2015). Accordingly, many studies have confirmed a significant relationship between unemployment and suicidal ideation and/or attempt (Blakely, 2003; Breuer, 2015). A recent study conducted in 2019 has shown that unemployed participants presented significantly higher levels of suicidal ideation when compared to employed participants (Faria et al., 2019). In another study, Blakely and colleagues (2003) collected data from 2.04 million participants in New Zealand aged 18-64 in 1991 to investigate the

relationship between employment status and socioeconomic status with suicide. They concluded that in both males and females, being unemployed doubles the risk of death by suicide when compared to employed participants when mental illness was controlled for confounding variable (Blakely et al., 2003)

Suicidal behavior can be predicted through unemployment itself, but also unemployment duration has played an important role in determining the severity of suicide risk. Classen & Dunn (2011) has found that people who have been unemployed for more than one year showed significantly higher levels of suicidal ideation when compared to an unemployment duration of less than a year. As unemployment increases, a sense of hopelessness accompanies the individual, thus leading to high psychological distress and suicidal ideation (Paul & Moser, 2009). A systematic review and meta-analysis have asserted that even though the relationship between unemployment and suicidal behavior was much investigated, the role of the duration of unemployment was relatively understudied (Milner et al., 2013).

1.3.2 Social Support, unemployment, and suicide

Unemployment is a critical stressful life event that manifests as a psychological and physical burden (Sumner & Gallagher, 2016). Many studies confirm that social support has an extensive effect on life stressors (Viswesvaran et al., 1999), and with unemployment being a critical stressor, it can be said that high levels of social support can decrease negative consequences of unemployment, in this case; suicide risk (Paul & Moser, 2006). Kroll and Lampert (2011) found verifying evidence in prior studies. They concluded that even though unemployment has been strongly correlated with psychological and physical difficulties, those with higher levels of social support had better overall well-being than the unemployed with low social support. Lack of social

support can also be observed as a cause of unemployment. Gallie et al. (2003) have found that the unemployed are more likely to withdraw from the social occasion, which leads to less perceived social support and belongingness when compared to the employed sample.

Jahoda's (1981) latent deprivation model argues that employment influences mental health through several dimensions; it provides a structured timing of life, social contact, collective goal, social and economic status, and social activity. When unemployed, they lose financial income and the mentioned aspects of life. Jahoda's theory argues that as the deprivation from these aspects occurs, the person inevitably leads to psychological dysfunction. Accordingly, the theory confirms the mentioned research and argues that employment is beside a financial source of income but also a place for fulfilling psychological needs.

The importance of social support in the relationship between unemployment and suicidal ideation can be better understood and supported by Interpersonal – Psychological Theory of Suicide (IPTS) (Joiner, 2005). IPTS is formed on several concepts: thwarted belongingness, perceived burdensomeness, hopelessness, suicidal desire, and if one has the capacity: a suicide attempt. Social support does indeed explain much of the theory by itself. If an individual feels alone and like a burden to others, in this case, the unemployed can feel alone due to a lack of social interaction. They can also feel like a burden to others through financial dependency; a person will develop high levels of hopelessness, thus leading to suicidal ideation (Joiner, 2005; Van Orden et al., 2010; Bell et al., 2017).

1.3.3 Social problem-solving skills, unemployment, and suicide risk

Problem-solving skills are coping strategies that extenuate psychological distress by generating rational ways to approach a distressing event or problem situation (D'Zurilla & Sheedy, 1991). According to D'Zurilla and his collogues (2004), a person can approach a problem positively or negatively. Positive and negative problem orientation refers to the extent to which an individual pursues to comprehend the problem situation rationally or, on the contrary, makes an irrational decision regarding the distressing event (D'Zurilla et al., 2004). Positive problem-solving orientation occurs when an individual can assess the problem, make rational solution alternatives, decide on the best available option, and apply it. Negative problem-solving direction refers to individuals who do not thoroughly think about the problem situation and its possible solutions but act on the first solution alternative instead of making a step-by-step analysis or ignore the existence of a problem together and do not act on it even if they see a problem (D'Zurilla et al., 2004).

The relationship between social problem-solving skills and suicidal ideation has been a topic of interest for researchers in the mental health field (Schotte & Clum, 1982; Pollock & Williams, 2004; Becker-Weidman et al., 2010). Dixon et al. (1991) propose that problem-solving styles and life stress, particularly unemployment, predict suicide risk regardless of age. It was also confirmed that a negative problem-solving approach heightens the risk of developing mental health disorders such as depression; and, accordingly, higher levels of suicide risk (D' Zurilla et al., 2001). Many studies in the field use sample populations from Western industrialized individualistic countries or cultures. However, a study showed that a positive problem-solving style is a protective

factor when faced with stressors such as unemployment, low wages, social unfairness, etc., in collectivistic cultures (Zhang et al., 2012).

The theoretical model of described relationship is further investigated and analyzed by Schotte and Clum (1987) in the diathesis-stress-hopelessness model of suicide. The model proposes that cognitive vulnerability, such as inadequate problem-solving skills, can demonstrate the relationship between stress, in this case, unemployment and suicide. The model provides a fundamental base for the argument on how unemployment can influence suicide risk depending on the problem-solving style.

Social problem-solving has been investigated as a mediator variable in different studies. Lyubomirsky et al. (1999) have found that stress-related depressed mood, including high levels of hopelessness, can impair social problem-solving skills. Chang and colleagues (2007) also found that stress and stressful situations can increase inadequate social problem-solving abilities. Social problem-solving can mediate the relationship between unemployment and suicide through different explanations. First stress of being unemployed can increase the risk for dysfunctions in social problem-solving abilities which may decrease the likelihood of obtaining or preserving a job which can eventually predict an overall negative psychological well-being (Chang, 2002; Chang et al., 2007).

1.3.4 Attribution Style, unemployment, and suicide risk

Attribution style refers to how an individual comprehends and explains an encountered positive or negative event (Peterson & Seligman, 1984). The attribution theory proposes that people can attribute the occurrence of a desired or undesired event to different causes (Peterson & Seligman, 1984). The theory also suggests that attributions inevitably influence a person's emotional and behavioral states (Weiner, 1985).

Causal attributions for an event are explained through locus, stability, and controllability (Weiner, 1985). The occurrence of an event can be attributed to external and internal attribution of causes to an event. External attribution refers to how a person attributes their failure/achievement to an external, situational, or environmental factor such as luck, opportunities, difficulty, or task ease. On the other hand, internal attribution directs an event's cause to the self-characteristics of a person, such as personal abilities or disabilities (Maier & Seligman, 1976). The stability dimension of causal attribution theory refers to whether the cause of an event is persistent over a certain period (stable) or differs over time (unstable) (Graham, 1991). Lastly, the controllability dimension indicates whether the cause of an event is within the limits of personal control or whether an uncontrollable external situation is present (Weiner, 1985; Kelley & Michela, 1980).

Weiner's (1986) attribution theory associates internal causes of attribution to an adverse event, such as unemployment, with psychological distress. The importance of attribution in the explanation of suicide risk in the unemployed sample plays a role as to explain the reactions and, accordingly, actions to take when faced with unemployment (Feather & Davenport, 1981). Attribution theory can be further investigated on current

constructs of unemployment and suicide risk through Learned Helplessness Theory (Maier & Seligman, 1976), in which they suggest that once a person believes they cannot control the outcome of an event they withdraw from the participation overall even if they can complete the task. What has been mentioned above is supported by Abramson et al. (1978) with Learned Helplessness Theory (Maier & Seligman, 1976), where it is pointed out that an individual who makes internal attributions are more likely to have lower self-esteem and higher depression. Weiner's (1986) attribution theory also associates internal causes of attribution to an adverse event, such as unemployment, with psychological distress. Winefield et al. (1993) argued that unemployed people have a heightened risk of developing depression when a failure, such as unemployment, is attributed to internal factors. Baumeister's (1990) suicide as an escape from the self-theory also states that when a person internally attributes their failure, the risk for depression and suicide increases. Similarly, O'Connor and Kirtley (2018) argue in the defeat entrapment theory that an experience of defeat, such as psychological struggles due to a stressful event (e.g., unemployment), can lead to the idea of being entrapped and inability to escape self from the problem situation.

Studies have investigated how attribution style can influence depression, psychological well-being, and suicide. A study showed that negatively attribution the cause of an event could increase the likelihood of being depressed (Bianchi & Brisson, 2019). D. Zhang and Yang (2015) also found that internally attributing the cause of an adverse event increases depressive symptoms.

Individuals automatically make attributions about the causes of events they are experiencing. Since this study aims to analyze the attribution style regarding a specific stressor, unemployment, and for the sake of simplicity, a reliable and valid questionnaire only measuring whether the attribution of unemployment is due to internal or external causes was used. Details of the measure will be provided in the method section.

1.4 The current study

The previous section discussed the relationship between employment and suicide risk and how social problem-solving, social support, and attribution style were discussed, referring to the previous literature. To the best of our knowledge, no study has investigated the mentioned variables in a whole model in Turkey; therefore, this study aimed to understand how the relationship between unemployment and suicide risk might have been influenced and mediated by different variables. As the topic is well-studied in the literature, we aim to broaden the perspective by adding possible protective factors against suicide in an unemployed sample. The unemployed population was our target group in understanding suicide risk because, since COVID-19 global pandemic, unemployment rates have significantly increased compared to previous years (ILO, 2021). As the literature shows, during times of high unemployment, the level of suicidal behaviors increases (Nordt et al., 2015). Accordingly, we wanted to examine what might play a protective role in the current situation.

To this end, we have created a moderated mediation model with parallel mediations to understand the mediating and moderating variables that might influence the relationship between unemployment and suicide. We examined the mediating effect

of social problem-solving and social support through the models Schotte and Clum's (1987) diathesis-stress-hopelessness model and Joiner's (2005) Interpersonal-psychological model of suicide, respectively. Social problem-solving was chosen as a mediator because several studies have discussed that social problem-solving skills can decrease during life stress (Lyubomirsky et al., 1999; Chang et al., 2007). Social support was chosen as a mediator because it is known that unemployed people may isolate from the social community and have a lower sense of belongingness and support (Gallie et al., 2003; Kroll & Lampert, 2011). As for attributing causes to unemployment, we expect to see a moderator role of attribution style in the relationship between unemployment and suicide risk. We will base our argument on Abramson's (1978) Learned Helplessness Theory and Baumeister's (1990) escape from self-theory. Attribution style was chosen as a moderator because it is expected that in the relationship between unemployment and suicide risk, people with an external attribution style would influence the strength of the relationship.

The conceptual and computational model of this study is presented in Figure 1.4.1. Based on the model, the current study tests the following hypotheses:

Hypothesis 1: Unemployed participants will report a higher suicide risk, lower social support, and inadequate social problem-solving skills than employed participants.

Hypothesis 2: Social Problem-Solving Skills will mediate the relationship between employment status and suicide risk. It is hypothesized that when a person is unemployed, they will have lower social problem-solving skills, and a person with low social problem-solving skills would have a higher risk of suicide.

Hypothesis 3: Perceived social support will mediate the relationship between employment status and suicide risk. It is hypothesized that when a person is unemployed, they will have lower levels of perceived social support, and a person with low perceived social support would have a higher risk of suicide.

Hypothesis 4: Attribution of causes to unemployment will moderate the relationship between employment status and suicide risk. It is hypothesized that when a person internally (to personal characteristics) attributes the cause of their unemployment, it will strengthen the relationship between unemployment status and suicide risk.

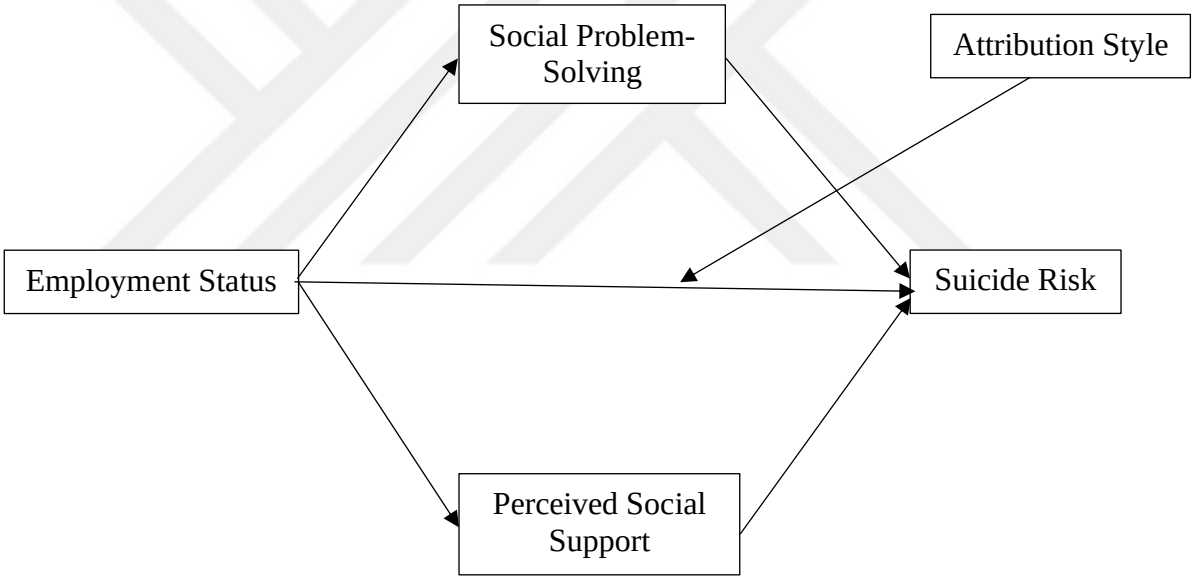


Figure 1.4.1 Conceptual Model

2

METHOD

2.1 Design

The current study is quantitative research, and the nature of the study is cross-sectional. The sociodemographic variables in this study are age, sex, education level, and income level. The study's independent variable is employment status, whether a person is fully employed (contracted, full-time) or unemployed. The dependent variable of the study is suicide risk. Mediating variables are perceived social support and social problem-solving skills. Moderating variable is the attribution of causes to unemployment.

2.2 Participants

A power analysis using a G-Power (3.1) calculator indicated that a sample size of 500 was required for an alpha level of .05 with 80% power for a small to moderate effect size. Therefore, two hundred forty-three (243) employed participants and three hundred thirty-three (333) unemployed participants were recruited. Participants voluntarily completed the survey, and they received no incentive for participation. All participants were Turkish speakers residing in Turkey. Exclusion criteria for the current study were participants who do not approve informed consent at the beginning of the survey, participants who do not have a job due to personal preference and are not in search of employment, participants who have daily contracted / daily paying jobs, participants who live outside of Turkey. Inclusion criteria are all consenting adults above 18 who are not excluded by previously mentioned exclusion criteria. A total of

1187 participants attempted to complete the survey; however, after exclusions, data analysis was conducted with 576 (*N*=333 unemployed, *N*=243 employed) participants.

The demographic variables are displayed in Table 2.2.1. The age of participants varied between 18- to 54-year-old. *(M*=28*; SD*=5.4*).* 69.9% of the participants were female, and 29.3% were male. 92% of the participants had completed a bachelor's or higher level of education. Two hundred thirty-one participants (40.1%) had low household income, 191 participants (33.1%) had a middle-income level, and 154 participants (26.7%) had a high-income level. The majority of the participants did not have any suicide attempts (82.6%).

Table 2.2.1 Sample Characteristics (n = 576)

	N	%
Gender		
Female	401	69.6%
Male	169	29.3%
Other	6	1%
Education		
Primary & Middle School	2	0.4%
High School	42	7.3%
Bachelor’s	412	71.5%
Master’s & Doctoral	120	20.09%
Employment Status		
Full-time employed	243	42.2%
Unemployed	333	57.8%
Household Income		
1000 TL (74$) and below	132	22.9%
1000-3000 TL (74-222$)	99	17.2%
3000-5000 TL (222-370$)	117	20.3%
5000-7000 TL (370-518$)	74	12.8%
7000 TL (518$) and above	154	26.7%
Suicide Attempt		
Yes	100	17.4%

No	476	82.6%

2.3 Procedure

Ethical approval for the study (2021.349.IRB3.151) was obtained from the Ethics Committee at Koç University, İstanbul, Turkey. Data from the participants were collected between January 18, 2022, and March 6, 2022. Participants were recruited through online platforms such as Instagram (Meta), Facebook (Meta), Twitter, and e-mail groups. An online poster was created, including the length of survey completion, inclusion criteria, the contact information of the researcher, and a Qualtrics link directing to the online survey. The poster was posted and distributed through the previously mentioned platforms.

Participants who wished to be included in the study entered the online platform (Qualtrics). First, participants were asked to read the informed consent, which included the aim of the study, possible risks and benefits the study may create data confidentiality, and the researcher's contact information. Participants who confirmed their consent then proceeded with demographic questions. Participants who were not either fully employed or wholly unemployed and who were below the age of 18 were excluded from the study and directed to the end of the survey. Participants who had not fallen within the previously mentioned exclusion criteria were surveyed on the Perceived Social Support (MSPSS), Attribution of Causes to Unemployment, Social Problem Solving (SPSI-R), and Suicide Probability.

This study was a one-time-only online questionnaire; it took 10-15 minutes to complete the online survey, including reading the informed consent. Participants have not provided any personally identifying information.

2.4 Measures

2.4.1 Demographics

Participants were asked to answer the following questions and coded into SPSS as specifid in the paranthesis: age, gender (i.e., female (1), male (2), and other (3)), years of education (i.e., primary school (5 years), middle school (8 years), high school (12 years), university (16 years), master's (18 years), and doctoral (22 years)), employment status (i.e., employed (0), unemployed (1)), if unemployed is selected duration of unemployment (i.e., 0-6 months (0), 6-12 months (1), more than one year (2)), work experience (i.e., yes(1), no(0)), reason of leave from a previous job (i.e., dismissed (0), resigned (1), other (2)), level of total household income (i.e., 1000TL and below (0), 1000-3000TL (1), 3000-5000TL (2), 5000-7000TL (3), 7000TL and above (4)), prior suicide attempt (i.e., yes (1), no (0)).

2.4.2 Multidimensional Scale of Perceived Social Support

Perceived social support was assessed by The Multidimensional Scale of Perceived Social Support (MSPSS). The MSPSS is a 12-item self-report scale measuring three types of social support; family, friends, and significant others. Each item is rated on a 7-point Likert scale with "1= very strongly disagree" and "7= very strongly agree". "My family (for example, my mother, father, wife, children, siblings) really try to help me." is a sample item for the family subcategory, "I can count on my friends when things go wrong." is a sample item from friends subcategory and lastly

"There is one person outside of my family and friends who really comforts me (e.g., dating, fiancée, relative, neighbor, doctor)" is a sample item from significant others subcategory. The minimum score that can be obtained in this measure is 12, and the highest score is 84. Higher scores in the inventory predicted higher levels of perceived social support (Eker & Akar, 1995). Factorial structure, validity, and reliability of the MSPSS in Turkey were conducted by Eker and Akar (1995). Eker and Akar (1995) concluded that MPSSS had internal consistency coefficients ranging between 0.80 and 0.95 obtained by Cronbach's alpha method. In the current study, MSPSS had good internal consistency ($\alpha = .91$).

2.4.3 Social Problem Solving Inventory-Revised

Social problem-solving skills were assessed by Social Problem Solving Inventory-Revised (SPSI-R). SPSI-R was adopted into Turkish by Eskin and Aycan (2009), and the short version of SPSI-R was used in this study for convenience. The scale has 25 items, each rated on a 5-point Likert scale with 0 "Not at all true of me" to 4 being "Extremely true of me." A sample item from the questionnaire is "difficult problems make me sad and alarmed." Scale integrates two dimensions and 5-sub scales of the social problem-solving process. The scale measures positive problem orientation and negative problem orientation as two main dimensions, rational problem-solving style, impulsive/carelessness style, and avoidance problem-solving style as sub-scales of prominent dimensions. Dimensions and subscales can be calculated and analyzed individually, and a total score can be obtained. The minimum score for the inventory is 0, and the maximum score is 125. A higher total score indicates a higher level of social-problem solving skills. Eskin and Aycan (2009) have tested the reliability and validity of both long and short versions of SPSI-R among the Turkish population. Internal

consistency coefficients for Tr-SPSI-R subscales ranged from 0.62 to 0.92, and test-retest reliability coefficients ranged from 0.60 to 0.84. Thus it was concluded that Tr-SPSI-R was a reliable and valid measure for assessing social problem-solving skills and its subscales in the Turkish sample. (Eskin and Aycan, 2009). SPSI-R had acceptable internal consistency in the current study with an alpha level of .70.

2.4.4 Attribution of Unemployment Scale

To assess the attribution of causes of being unemployed, The Attribution of Unemployment Scale was used. The Attribution of Unemployment Scale was adapted to Turkish by Yılmaz and Bilgiç (2009). The original version of the scale consists of 28 items; however, due to cultural adaptations and other factors, the Turkish version consists of 24 items. Scale detects 2 dimensions of attribution; internal and external. Six items refer to external attribution of unemployment, whereas 18 items refer to internal attribution of unemployment. An example item for internal attribution is “Not being good enough at a job interview,” and an example item for external attribution is “Government's failure to create enough job opportunities. Each item is rated on how directly it related to their reason for unemployment on a 5-point Likert scale with “1-not related at all” and “5-totally related”. The minimum score for the inventory is 18, and the maximum score is 90. Six externally attributing items were reverse coded, and overall higher scores predicted higher levels of internal attribution. Internal consistency reliability analysis indicates that the internal attribution factor stands at 0.86 and the external attribution factor stands at 0.73, suggesting that the scale is reliable (Yılmaz & Bilgiç, 2009). Attribution of the Unemployment Scale had good internal consistency in the current study with an Alpha level of 0.86.

2.4.5 Suicide Probability Scale

Suicide risk was assessed by Suicide Probability Scale (SPS). The suicide probability scale is a 36-item Likert-type scale with 4 point scale ranging from "none or little of the time (1) " to "most or all of the time(4)." The scale has four subscales; hopelessness (12 items), suicidal ideation (8 items), negative self-evaluation (9 items), and hostility (7 items). Some sample items from the questionnaire are as follows; “I feel unbearably lonely” and “I do not think the world is a place worth living.” The minimum score for the inventory is 36, and the maximum score is 144. Higher scores predict higher suicide probaility. Eskin (1993) adapted the scale to Turkish and analyzed the scale's reliability and validity among the Turkish sample. In the study, the test-retest reliability coefficient of the scale was found to be 0.95, and the internal consistency coefficient to be 0.80 (Eskin, 1993). The scale was also tested for reliability and validity among clinical samples by Atlı and colleagues (2009) and was found to be reliable and valid for mentioned sample. The suicide probability scale had good internal consistency in the current study (α =.83).

2.5 Data Analysis

A moderated mediation model was tested in the study to better understand the relationship between unemployment and suicide. The role of social problem-solving skills and perceived social support was integrated as mediators, and attribution style was included as the moderator. Hayes’s (2017) PROCESS macro statistical software using IBM SPSS Statistics 28.0 (IBM Corp, 2021) was used to test the mediation and moderation paths in the model. Hypotheses were tested using Model 5; this model allows several mediation variables and one moderating variable to be included in the

analysis. Accordingly, our two mediators and one moderator model were appropriate for Hayes's (2017) PROCESS macro-Model 5.

Before testing the moderated mediation model, a preliminary analysis was conducted. The descriptive statistics and the group differences were examined. Normality assumptions were checked using Shapiro-Wilk Test and Q-Q plot. Skewness and kurtosis values were examined to see if the data satisfied normality assumptions. Separate bivariate correlation coefficients were computed among the study variables in unemployed and employed participants. One-way analysis of variance was done to test Hypothesis 1, and chi-square analysis was done to compare employed and unemployed participants in several other study variables (e.g., gender, age). After completing the preliminary analysis, PROCESS Macro model 5 was used to understand the full moderated (parallel) mediation model. Each step is further discussed and statistically elaborated in the results section.

3

RESULTS

3.1 Preliminary Analysis; Descriptive Statistics, Bivariate Correlations, and Differences Between Groups

The results of descriptive statistics (number of participants, range, mean, skewness, and kurtosis) for each variable are presented in Table 3.1.1. Differences among groups (e.g., employed and unemployed participants) are presented in Table 3.1.2. The results and bivariate correlations among the study variables and associated study variables are presented for the unemployed and employed participants in Table 3.1.3 and Table 3.1.4, respectively.

The descriptive statistics of study variables are presented in Table 3.1.1. Accordingly, all variables, namely attribution style, social problem-solving, perceived social support, and suicide probability, were normally distributed and symmetrically skewed since they are all within the range of -.1 and .1 (Kim, 2013).

Table 3.1.1 Descriptive Statistics for Study Variables

	N	Range (max-min)	Mean	Std. Deviation	Skewness	Kurtosis
Suicide Probability	576	138-42	81.8	20.7	.32	-.57
Social Problem Solving	576	18-2	11.5	3.1	-.38	-.17
Perceived Social Support	576	84-12	53.1	18.4	-.16	-.87
Attribution Style	576	96-28	57.2	12.8	.25	-.51

The differences between unemployed and employed participants among study variables are presented in Table 3.1.2. A total of 576 participants were recruited for the study. Among the 333 unemployed participants, 250 were female, 70 were male, and four were non-binary. Two hundred forty-five unemployed participants have completed university-level education, and 58 have completed a master's or doctoral education. Therefore only 9.9% (*N*=30) of the unemployed participants have completed high school or lower-level education. At the time of data collection minimum wage approved by the Turkish Government was 4250 Turkish Lira (315$); in January 2022, the starvation line was set at 4250 Turkish Lira (315$), and the poverty line was set at 13.844 (1.025 $) Turkish Lira for a family of four (TÜRK-İŞ, 2022). 64.8% (*N*=216) of the unemployed who completed the survey had a total household income below 3000TL (200$) which is below the starvation line. The majority of unemployed participants (*N*=176) have been unemployed for more than one year. 72% (N=240) of unemployed participants have had previous work experiences, and the majority of them have left their job through resignation.

As for the 243 employed participants, 142 were female, 99 were male, and two were non-binary. 94.2% (*N*=225) of the employed participants have completed university-level or higher-level (master's or doctoral) education. 70% (*N*=170) of employed had a total household income above 5000TL (370$).

Table 3.1.2 Differences of Study Variables among the Employed and Unemployed

	Unemployed (N=333)	Employed (N=243)
	N (%)	N (%)
Gender		
Female	259 (77.8%)	142 (58.4%)
Male	70 (21%)	99 (40.7%)
Other	4 (1.2%)	2 (0.8%)
Education		
Primary & Middle School	2 (0.6%)	0
High School	28 (8.4%)	14 (5.8%)
Bachelor's	254 (73.6%)	167 (68.7%)
Master'& Doctoral	58 (17.4%)	59 (25.5%)
Unemployment duration		
0-6 months	115 (34.3%)	N/A
6 months – 1 year	42 (12.2%)	N/A
1 year and more	176 (53.5%)	N/A
Previous Work Experience		
Yes	240 (72.07%)	N/A
No	93 (27.93%)	N/A
Type of previous job leave		
Resignation	144 (60%)	N/A
Dismissal	28 (11.6%)	N/A
Other	68 (28.4%)	N/A
Household Income		
1000 TL (74$) and below	132 (39.6%)	0
1000-3000 TL (74-222$)	84 (25.2%)	15 (6.2%)
3000-5000 TL (222-370$)	59 (17.7%)	58 (23.9%)
5000-7000 TL (370-518$)	25 (7.5%)	49 (20.2%)
7000 TL (518$) and above	33 (9.9%)	121 (49.8%)
	Mean & Std. Deviation	Mean &Std. Deviation
Suicide Probability	M= 87.38 SD= 20.08	M=74.10 SD= 19.08
Social Problem Solving	M=11.25 SD= 3.35	M=11.77 SD= 2.68
Perceived Social Support	M=48.54 SD=17.63	M= 59.43 SD= 17.70
Attribution Style	M=51.80 SD= 10.66	M=64.53 SD= 11.83

The results of the bivariate correlation analysis in unemployed and employed participants are presented in Table 3.1.3, it demonstrated several implications regarding study variables. To start with, suicide probability was negatively correlated with mediator variables, namely, social problem solving and perceived social support (r = -.52, -.59, p < .001, respectively), and has positively correlated with moderator variable, attribution style (r = .27, p <.001) in unemployed participants. Results were similar for employed participants, where social problem-solving and perceived social support were negative (r = -.54, -.64, p <.001, respectively); however, attribution style did not correlate (r =.04, p >.05) with suicide probability. Suicide probability negatively correlated with age among the unemployed, indicating that older adults are less inclined to suicide (r = -.15, p <.001). The longer years of education negatively correlated with suicide probability in both unemployed and employed participants (r = -.18, p <.001; r = -.15, p <.001, respectively), indicating that more years spent in education lowers the risk of suicide. Income has negatively correlated with suicide probability in both groups (r = -.14, -.18, p <.001), indicating that a higher household income decreases the suicide probability. Lastly, as predicted, previous suicide attempts have positively correlated with suicide probability in both groups (r = .39, .20, p <.001). However, suicide attempts did not significantly differed in terms of unemployed and unemployed participants, the mediators and the moderator.

Social Problem-Solving significantly and negatively correlated with suicide probability in both unemployed and employed participants (r = -.52, -.54, p <.001, respectively), and it has negatively correlated with attribution style only for the unemployed participants (r = -.35, p <.001). Social problem-solving positively correlated with education in the unemployed sample, indicating that higher social problem-solving skills can predict a higher-level education (r = .16, p <.001).

Perceived social support significantly and positively correlated with social problem-solving skills in both unemployed and employed participants (r = .23, .33, p <.001, respectively), indicating that participants who have reported higher levels of perceived social support also reported high social problem-solving skills. Unemployed participants with higher levels of perceived social support reported lower suicide probability and external attribution to unemployment (r = -.59, -.12, p < .001, respectively). Perceived social support also positively correlated with household income for unemployed participants (r = .15, p < .001).

Causal attribution to reasons for unemployment significantly and negatively correlated with social problem-solving and perceived social support (r = -.35, p < .001; r = -.12, p < .05, respectively) and has positively correlated with suicide probability (r = .27, p <.001). The results indicated that unemployed participants who have internally attributed to the cause of their unemployment had scored lower on social problem-solving skills and perceived social support, whereas they scored high on suicide probability.

Table 3.1.3 Bivariate Correlations Among Study Variables for Unemployed (under the diagonal) and Employed (above the diagonal) Participants

	1	2	3	4	5	6	7	8	9
1. Age	1	.12	.09	.09	-.02	-.00	-.00	-.13	.11
2. Gender	-.01	1	-.09	.08	.04	.06	.12	-.18**	-.04
3. Education	.21**	-.12*	1	.18**	-.07	-.15*	.09	.72	-.08
4. Income	.08	-.10	.15**	1	-.07	-.18**	.07	.12	.16*
5. Suicide Attempt	-.06	-.02	-.14**	-.01	1	.20**	-.08	-.15*	-.12
6. Suicide Probability	-.15**	.13*	-.18**	-.14**	.39**	1	-.54**	-.64**	.04
7. Social Problem Solving	.12*	-.04	.16**	.00	-.15**	-.52**	1	.33**	-.12
8. Perceived Social Support	-.00	-.21**	.12*	.15**	-.15**	-.59**	.23**	1	-.00
9. Attribution Style	-.15**	.10	-.09	-.01	-.03	.27**	-.35**	-.12*	1

Note. * p <.05, ** p <.01. Values on lower left diagnal represent the findings for unemployed participants, values on the upper right diagonal represent the findings for the employed participants.

3.2 Testing the Hypotheses

First, Hypothesis 1, "Unemployed participants will have a higher suicide risk, lower social support, and inadequate social problem-solving skills than employed participants," was tested through a one-way analysis of variance. The results confirmed our first hypothesis and indicated that there was a significant difference between unemployed and employed participants in suicide risk ($F (1, 574) = 64.06$, $p <.001$), perceived social support ($F (1, 574) = 53.45$, $p <.001$) and social problem solving ($F (1, 574) = 4.45$, $p =.035$). That is, unemployed participants reported higher suicide risk ($M=87.38$, $SD=20.08$) compared to employed participants ($M=74.10$, $SD=19.07$).

Unemployed participants reported lower social support (M=48.54, SD=17.63) than employed participants (M=59.43, SD=17.70). Lastly, unemployed participants had lower social problem-solving abilities (M=11.25, SD=3.35) than employed participants (M=11.77, SD=2.68).

After conducting a one-way analysis of variance for hypothesis 1, PROCESS macro for SPSS (Hayes, 2013) was employed to test the rest of the hypotheses. We added employment status (e.g., unemployed) as a predictor, social problem-solving and perceived social support as mediators, attribution style as a moderator, and suicide probability as the outcome variable of the model. Model 5 of Hayes's (2013) PROCESS macro for SPSS was used with 5000 bootstrap samples for percentile bootstrap confidence interval. The confidence level for all confidence intervals was 95.00 (see Table 3.2.1 for detailed statistics) set for the analysis. Statistical values on the model for the following hypothesis testing are present in Figure 3.2.1.

Hypothesis 2, "Social Problem-Solving Skills would mediate the relationship between employment status and suicide risk," was supported. The indirect effect of social problem-solving on unemployment and suicide risk was positively significant (β = .06, 95% CI [.01, .12]). Unemployment was significantly and negatively associated with social problem-solving (β = -.55, t=-2.11, p = .03), and social problem-solving significantly and negatively predicted suicide risk (β = -2.38, t=-11.91, p <.0001) (see Table 3.2.1).

Hypothesis 3, "Perceived social support would mediate the relationship between employment status and suicide risk," was supported. The indirect effect of perceived social support on unemployment and suicide risk was significant and positive (β = .29, 95% CI [.21, .38]). Unemployment was significantly and negatively associated with

perceived social support (β = -10.89, t= -7.31, p <.0001), and perceived social support significantly and negatively predicted suicide risk (β = -.56, t=-16.89, p<.0001) (see Table 3.2.1).

Hypothesis 4, "Attribution of causes to unemployment would moderate the relationship between employment status and suicide risk," was not supported. The interaction effect of employment status and attribution style was not significant (β = .1357, t = 1.31, p > .05). There was also no significant relationship between attribution style and suicide risk (β = .0038, t = .0509, p > .05) (see Table 3.2.1).

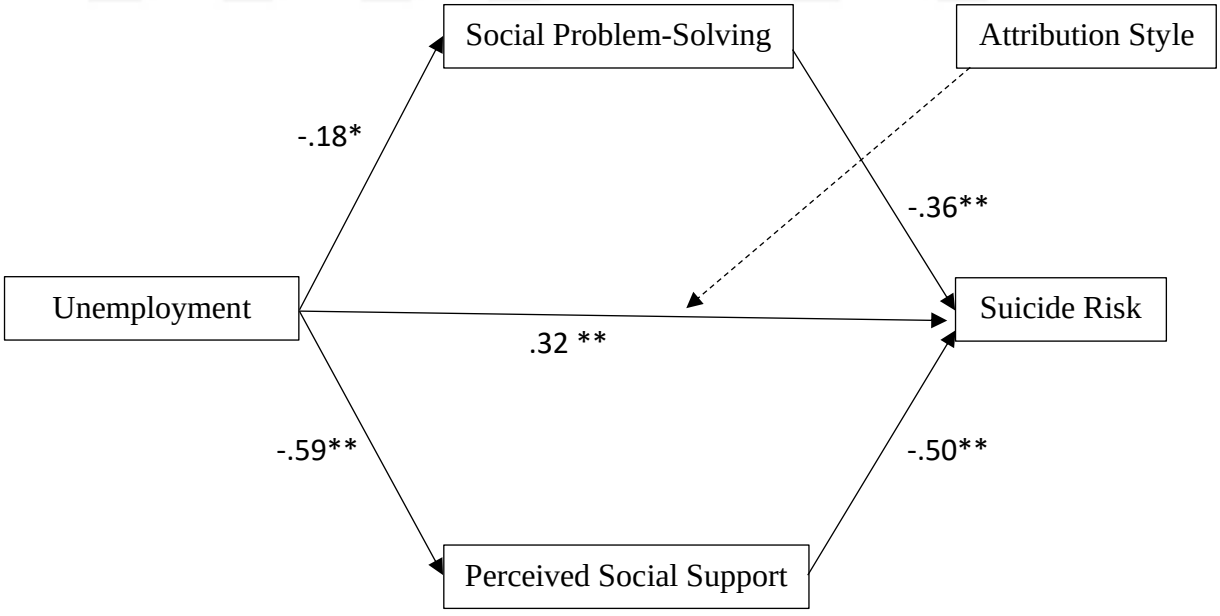
Results indicated that attribution style did not moderate the relationship between employment status and suicide risk. Perceived social support did mediate the relationship between employment status and suicide risk with a greater account of the total effect, where the total effect was β = .36, 95% CI: [.24, .47] and perceived social support indirect effect was β = .29, 95% CI: [.21, .38]. The social problem-solving indirect effect accounted for a much smaller portion of the total effect (β =.063 95% CI [.01, .12]). Furthermore, the direct effect of unemployment on suicide probability when the mediators were also found significant (β = .32, p < 0.001). Therefore, perceived social support and social problem-solving partially mediated the relationship between unemployment and suicidee risk.

Table 3.2.1 PROCESS Macro Model 5 Analysis

Variable	***B***	***se***	***t***	***p***	***LLCI***	***ULCI***	***df1***	***df2***	***F***	R^2
Outcome: SPSS							1	574	4.45	.01
Unemployment	-.18	.08	-2.11	.03	.03	-.34				
Outcome: PSS							1	574	53.45	.08
Unemployment	-.59	.08	-7.31	.00	-.75	-.43				
Outcome: SP							5	570	149.54	.57
Unemployment	.32	.06	4.71	.00	.18	.45				
SPSS	-.36	.03	-11.91	.00	-.41	-.29				
PSS	-.50	.03	-16.89	.00	-.56	-.44				
AS	.00	.04	.051	.96	-.08	.09				
Unemp x AS	.08	.06	1.31	.19	-.04	.21				

Note. SPSS = Social Problem-Solving Skills, PSS= Perceived Social Support, SP= Suicide Probability, AS= Attribution Style

Figure 3.2.1 Standardized Coefficients for PROCESS Macro Model 5



Note. * p <.05; ** p <.001

4

DISCUSSION

The current study investigated how perceived social support, social problem-solving, and attribution style influenced the relationship between employment status and suicide risk. The employment status and suicide risk have been investigated in various research (Pretti & Miotto, 1999; Ostamo et al., 2001; Blakely et al., 2003). The relationship was further investigated with social support, problem-solving, and attribution style. Even though the variables have been investigated in various research data collection, this study was conducted during the COVID-19 pandemic, in which the unemployment rates were higher than in the previous years (WHO, 2022), and social support mechanisms were restricted due to COVID-19 social lockdown regulations for many countries. To our knowledge, no study has investigated the relationship between employment status and suicide risk within the mentioned mediators and moderators in the Turkish population. Accordingly, the mediator effect of perceived social support and social problem-solving in the association between employment status and suicide risk was tested. Furthermore, the moderating role of attribution to unemployment was also tested within the mentioned association.

The current study had four hypotheses. First, it was hypothesized that unemployed participants would have a higher suicide risk, lower social support, and inadequate social problem-solving skills than employed participants (H1). Secondly, we hypothesized that social problem-solving skills (H2) and perceived social support (H3) would mediate the relationship between employment status and suicide risk. Lastly, it was hypothesized that attributing causes to unemployment would moderate the

association between employment status and suicide risk (H4). In the following section, study results, clinical implications, and limitations of the study will be further discussed.

4.1 Results for Sociodemographic

To understand how the study variables, namely, age, gender, education level, household income, suicide attempt; for unemployed participants, duration of unemployment, prior work experience, and the reason for release, influence the dependent variable, suicide risk correlation analysis, and one-way analysis of variance (One-Way ANOVA) was conducted.

First, it was seen in both correlation analysis and analysis of variance that suicide risk differs significantly among the education levels in both employed and unemployed samples. The current study presented education levels in 6 categories: primary school, middle school, high school, university, master's, and doctoral. Results indicated that as years in education increase, the suicide risk decreases. Previous research in the literature suggests a similar result or finding, where they argue lower education level is associated with higher suicide (Kesler et al., 1999; Park et al., 2018).

Second, in both employed and unemployed participants, as the level of income increased, the risk of suicide decreased. Literature on this topic is consistent with our findings; Iemmi and colleagues (2016) argued that as income decrease, the suicide risk increases, and it was confirmed through a systematic review investigating low and middle-income countries with a relatively higher level of suicide probability. It was also found that lower income increases not only the risk of suicide but also other psychiatric disorders (Sareen et al., 2011). When characteristics for participants were analyzed it

was seen that majority of the unemployed participants have had household income below starvation line (351$). TUİK (2021) data for starvation line and poverty line was set differently for individuals and for families (4 person), however, in the demographics we did not ask for the number of people living in the household. Therefore, our results can be misinterpreted without knowing the number of people living in the household, only a general statement can be made as income increases risk for suicide decreases.

4.2 Study Hypotheses

In the first hypothesis, we expected that unemployed participants would have a higher suicide risk, lower social support, and inadequate social problem-solving skills than employed participants. The results of the current study were supportive of our first hypothesis. The results indicated that unemployment positively predicted the suicide risk; that is, when a person is unemployed, they have higher levels of suicide risk when compared to employed (H1). The literature findings have shown that unemployment can influence suicide in several ways. Unemployment can decrease the accessibility to general better living conditions (e.g., housing, adequate nutrition intake), health care options (Preti, 2003), it can also increase the social isolation (Gallie, 2003). It is also known that the unemployed have twice the risk of developing a mental health disorder such as depression when compared to their employed counterparts (Dooley et al., 1994; Zuelke et al., 2018), and it is also commonly known that mental health disorders, especially depression heightens the risk of suicide (Wilson & Walker, 1993; Classen & Dunn, 2011). A 10-year longitudinal study comparing the suicide probabilities of employed and unemployed participants indicated that unemployed participants had higher risk of suicide. (Kposowa, 2001). Therefore, the current findings were consistent with the literature. However, in the literature there has been a debate on whether

unemployed people are at an increased risk for psychological problems or whether people with psychological problems are more inclined to be unemployed (Milner et al., 2013b). Some studies confirm the latter argument and discuss in their findings that people who have psychological disorders are more likely to be unemployed (Butterworth et al., 2012), however in the current study we did not access for a prior psychiatric disorder through a valid scale, accordingly the results cannot be discussed through the perspective of this debate.

It was also hypothesized that the unemployed participants would report lower perceived social support and social problem-solving. Perceived social support and social problem-solving skills were also hypothesized to mediate the relationship between employment status and suicide risk. Each path will be explained and discussed separately to understand the mediation models.

Results showed that unemployment negatively predicts perceived social support. That is, unemployed participants had lower perceived social support when compared to their employed counterparts, and lower perceived social support positively predicted suicide risk. Some studies argued that unemployment might not necessarily increase social isolation, especially for people below 50. A similar study also suggested that social support and social contact did not decrease after unemployment (Atkinson et al., 1986; Rözer et al., 2020). On the contrary, some other studies indicate that job loss and unemployment can lead to social isolation (Bambra, 2010; Pohlan, 2019). Gallie and his colleagues (2010) argue that unemployment can be one of the central states in which stigmatization and social isolation occur. These findings and arguments are in line with Jahoda's (1981) latent deprivation theory, where he suggests that unemployment may have both material (income, health benefit availabilities, etc.) and psychological

(stigma, social support, isolation, etc.) consequences and can lead to deprivation in both dimensions. In the current study, our results yielded that unemployment can be a predictor of lower perceived social support, which was in line with the latter arguments.

As to understanding the mediator role of perceived social support, the literature indicates that perceived social support works as a protective factor against suicide risk; people with lower social support have an increased risk for suicide (Heikkinen et al., 1994; Joiner, 2005). Joiner (2005) argues in his Interpersonal Theory of Suicide that thwarted belongingness is one of the primary constructs in understanding the path to suicide; that is, when a person feels as if they do not belong to a social community, there is a heightened risk of suicide (You et al., 2011). A study was conducted using Kessler's (2004) National Comorbidity Study-Replication for USA participants and Adult Psychiatric Morbidity Study; APMS data for the UK population showed that social support decreased the lifetime suicide attempt in all ages (Kleiman & Liu, 2013). It was also found that social support decreases the potential occurrence of psychological problems such as depression, decreases psychological distress, and increases self-esteem (Cobb, 1976; Thoits, 1995; Thoits, 2010). A study conducted by Perreault and colleagues (2017) confirmed the existing literature by indicating that full-time employment can increase social support, decrease distress, and reduce depression. Considering the results, we can say that perceived social support mediated the relationship between employment status and suicide risk. In the current study, unemployed participants reported lower levels of perceived social support, which supports the first hypothesis, which predicted higher suicide risk, supporting the second hypothesis. The findings were in line with the literature and confirmed our hypothesis.

As for the role of social problem-solving skills, the results of the current study indicate that unemployed participants reported inadequate problem-solving skills, which predicted higher suicide risk. Nezu (2004) differentiates stressful events as adverse life events, such as unemployment, and daily stressors, such as difficulty finding a new job. He argues that these two struggles influence each other, and an adverse life event (i.e., unemployment) can alter cognitive appraisal and coping mechanisms and decrease the ability for rational problem-solving skills, which decreases the ability to overcome daily stressors (Nezu, 2004; Bell & D'Zurilla, 2009). A study conducted with 214 adult participants investigating the mediating role of social problem-solving skills between stress and psychological well-being found that stress negatively influences problem-solving skills and psychological well-being (Chang et al., 2007).

Studies show that inadequate social problem-solvers had more suicidal behavior when compared to participants with positive and rational problem-solving skills (Speckens & Hawton, 2005). Several research throughout the years confirmed that people who have attempted suicide had fewer and relatively inadequate social problem-solving skills (O'Connor & Nock, 2014). These skills were less practical than participants who had not attempted suicide (Schotte & Clum, 1982; Pollock & Williams, 2004). Schotte and Clum (1982) further explain the rationale behind these findings in their diathesis-stress suicide model. The mentioned model argues that negative problem-solving is a predictor of suicidal behavior and suggests that people who have inadequate problem-solving abilities have higher levels of suicidal behavior when they are under stress. The current study confirmed the previous literature findings and theoretical background. In this research, unemployed participants reported lower problem-solving abilities, which predicted a higher risk for suicide. In contrast,

employed participants reported higher problem-solving abilities, which predicted lower suicide risk.

Furthermore, in the current study, we have investigated the moderating role of attribution style on employment status and suicide risk. Baum and his colleagues (1989) argued that job loss leading to unemployment could disturb the person's sense of control in their environment and psychological well-being. Loss of control regarding an adverse event can predict a negative/dysfunctional attribution style. The literature argues that the dysfunctional attribution style refers to how individuals attribute the cause of an adverse event to themselves. In a functional attribution style, people attribute the cause of a positive event to others. Abramson and his colleagues (1978) argue that a dysfunctional attribution style heighten the risk of psychological problems such as depression which eventually increase the risk of suicide. A study of 1709 participants indicated that negative attribution style is a significant predictor of depressive symptoms and related psychological problems (Schwartz et al., 2000). In the current study, we hypothesized that attribution style would moderate the relationship between employment status and suicide risk; internally attributing the cause of unemployment would strengthen the relationship between unemployment and suicide risk. However, the results did not support our hypothesis (H4). Attribution style did not significantly moderate the relationship with the study group. With previously mentioned literature findings, it was unexpected to have a nonsignificant moderation. There may be several reasons; the data was collected from January-February 2022 when COVID-19 pandemic restrictions were active. Numerous companies have dismissed their employees due to the unpredictable nature of business in current COVID-19 restrictions, decrease in company income, etc. (Cohen, 2020; Tu et al., 2021). Accordingly, there was an inevitable external cause for unemployment which was unpredicted for most people yet

a widespread experience worldwide. The commonness of the unemployment experience might have decreased the psychological and cognitive influence for negative, internal attribution of cause to unemployment. It is important to note that in the current study, the measure used for assessing attribution style was specially made for unemployment; thus, the items were only related to this construct which may have influenced the answer due to previously mentioned COVID-19-related adverse events. Another reason might be that the participants in this study were highly educated in both employed and unemployed group. Having a higher level of education might have decreased the causes of unemployment to self-characteristics, as in internal attribution style. It is known that having an education higher or equal to bachelor's degree decreases the likelihood for unresolved unemployment (Núñez & Livanos, 2009), thus considering the participants in this study it can be said that participants did not internally attribute the negative consequences of unemployment to themselves rather they have attributed to external and situational factors.

4.3 Limitations and further research

The current study had several limitations. First of all, the unemployed participants were defined as the ones who are in active search for employment during the data collection period. The reason we have specified the active search for a job as an inclusion criteria was to eliminate the participants who were voluntarily unemployed. However, this criteria excluded the participants who have searched for a job but did not achieve and eventually gave up on the searching process. Eliminating the mentioned participants may have influenced our results since those participants could have had even higher risk for suicide and may have significantly influenced the relationship between employment status and suicide risk through an internal attribution style. Also,

people who are actively searching for employment can be seen as the ones who are rationally coping with an adverse event (e.g., unemployment).

Second, the participants in both unemployed and employed groups were considered to be highly educated, that it majority of the participants had at least a bachelor's degree. Having a highly educated sample may limit the generalizability of our results. Highly educated participants may differ from low educated participants in terms of social problem-solving styles and attribution styles. Thus, further research should include participants from lower education level.

Third, we have discussed the relationship between unemployment and suicide risk however we did not ask for the level of financial stress. Even though a person is unemployed, they can have different levels of financial stress which would inevitably influence their social problem-solving abilities, their attribution style and their risk for suicide. Further studies should not only focus on whether a person is unemployed or not but they can also focus on the level of financial stress they are in. Also, we did not measure COVID-19 stress in this study. Considering during the time of data collection COVID-19 still effected the lives of many, it was important to asses this stress and discuss it's potential influence on study variables.

Fourth, all participants were recruited through online platforms such as social media and e-mail groups, so people without internet or electronic devices were automatically excluded. Second, the number of female participants was higher than male participants, which may have influenced the results when controlling for gender as a confounding variable. The results may have needed to be more generalizable for the male population.

Fifth, the demographic questions did not ask for the city of residency or employment. The location of un/employment, whether rural or urban, is an essential predictor of material and psychological consequences. In 2021, European Union (EU) reported that rural areas had lower unemployment rates than urban areas. International Labour Organization (ILO, 2020) reported that employment in rural areas was 94% informal. In this study, only the participants with full-time employment contracts were recruited for the employed group, so it may have been the case that people in rural areas who were not officially employed may have been excluded from the study and disregarded. Also, due to a lack of residency questions, the study could not observe any differences between urban and rural employment and suicide risks. Further research should focus on this issue, discuss the potential self-employed rural workers, especially agriculture workers, and compare it with employees in urban areas.

Sixth, the reason for unemployment was asked as dismissed, resigned, or other, yet whether the dismissal was due to covid or else was not explicitly asked. As discussed in the previous section, dismissal due to covid may have influenced the attribution style, and without the specified dismissal reason, results can be misleading. A collective dismissal due to COVID-19 may decrease negative self-evaluation compared to a dismissal due to employee-specific reasons. As of 2023, COVID-19 precautions and restrictions have been extended. Its effects have almost entirely diminished, so further research can focus on whether the dismissal was collective or specific to the participant.

Seventh, the current study used an unemployment-specific measure (Attribution to Unemployment Scale) to assess whether the participant had an internal or external attribution style. This may have needed to be more accurate when making assumptions

about the general attribution style of the participant, especially during COVID-19. Accordingly, further research may investigate the detailed attribution style in general to make assumptions about the influence of the relationship between unemployment and suicide risk.

Lastly, this study had a cross sectional study design so it can be said that results discussed in the previous parts of this thesis was not indicating a causal relation rather only the direction of the relationship between variables. Cross sectional design limits the inference of causality. Also, all our our hypothesis were bidirectional in this study. That is the even though the relationship was assessed in one direction, future research should focus on both directions and discuss the findings accordingly. Accordingly, further studies could use a prospective study design for a understanding the causality within variables.

4.4 Clinical Implications

Our study has shown the negative influence of unemployment on suicide risk. It was also concluded that low perceived social support and inadequate problem-solving style can significantly influence the risk of suicide in the unemployed population. Accordingly, these results are important for structuring several prevention techniques to decrease the suicide risk among the unemployed. First of all, it has been discussed in detail that social support can decrease not only the suicide risk but also other psychological problems among the unemployed (Pohlan, 2019). Social support groups for the unemployed should be established where common material and psychological experiences are shared (Stuckler et al., 2009). Social support groups are not only a place to share experiences, but these groups could also motivate people to reach their goals.

Secondly, problem-solving therapy can intervene in dysfunctional problem-solving styles among the unemployed (Nezu & Nezu, 2001; D'Zurilla & Nezu, 2009). Problem-solving therapy works with real-life stressors and aims to rationally manage the occurrence and psychological consequences of the event using numerous techniques such as alternative planning, psychoeducation, cognitive restructuring, etc. (D'Zurilla & Nezu, 2009). An advantage of problem-solving therapy is that it can be conducted in a group format, which is preferable regarding financial costs and material availability. Using psychotherapy as an intervention among the unemployed would modify the dysfunctional cognitive structures and inadequate social problem-solving skills and decrease suicide risk and psychological problems.

4.5 Conclusion

The current study investigated the mediating roles of perceived social support, social problem-solving skills, and the moderating role of attribution style in the relationship between employment status and suicide risk. The results indicate that the unemployed had a higher suicide risk when compared to their employed counterparts. Perceived social support and problem-solving skills mediated the relationship, and it was seen that the unemployed had lower perceived social support and inadequate problem-solving skills, which predicted a higher risk for suicide. It was expected that attributing the causes of unemployment to personal or internal would moderate the relationship. However, the result did not support our expectations, and attribution to unemployment did not moderate the relationship. Results indicate that the unemployed must have adequate social support and rational problem-solving skills to decrease suicide risk.

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APPENDICES

Appendix A: Informed Consent

Koç Üniversitesi Klinik Psikoloji Yüksek Lisans Programı öğrencisi Ece Çağlak tarafından yürütülen, Koç Üniversitesi Psikoloji Bölümü öğretim üyesi Prof. Dr. Mehmet Eskin danışmanlığında, Koç Üniversitesi Etik Kurulları'nın 2021.349.IRB3.151 sayılı onayı ile izin verilen, "İşsizlik ve İntihar Riski; Problem çözme, Sosyal destek ve Atıf biçiminin Rolü" başlıklı araştırmaya katılımınız rica olunmaktadır. Bu araştırmaya tamamen kendi iradenizle, herhangi bir zorlama veya mecburiyet olmadan gönüllü olarak katılımınız esastır. Lütfen aşağıdaki bilgileri okuyunuz ve katılmaya karar vermeden önce anlamadığınız herhangi bir husus varsa çekinmeden sorunuz.

Çalışmanın Amacı

Bu çalışmada, Türkiye'de yaşayan işsizlerin intihar düşüncesi ile ilişkisinde sosyal problem çözme becerisinin, atıf biçiminin ve sosyal desteğin nasıl bir rol oynadığını anlamaya çalışarak bu faktörlerin intihar düşüncesini azaltmada nasıl yer alabileceğini bulmak hedeflenmektedir.

Prosedürler

Bu çalışmaya gönüllü katılmak istemeniz halinde sizden yaklaşık 10-15 dakika sürmesini beklediğimiz bir çevrimiçi anket doldurmanızı bekliyoruz. Anket başında kimliğinizi açığa çıkarmayacak bir takım demografik bilgiler istenecektir örnek; yaş, eğitim durumu, iş durumu vb. Demografik bilgilerin tamamlanmasıyla beraber kapalı uçlu (çoktan seçmeli ya da derecelendirme ile cevaplama) olan birtakım sorular cevaplamanız beklenmektedir.

Olası Riskler ve Rahatsızlıklar

Çalışmamız, sizin için herhangi bir fiziksel veya psikolojik risk taşımamaktadır. Rahatsız hissetmeniz durumunda herhangi bir açıklama yapmanıza gerek olmaksızın, herhangi bir yaptırımla karşılamadan çalışmayı sonlandırabilirsiniz

Topluma ve/veya Gönüllülere Olası Faydaları

Çalışmamız işsizliğin intihar düşüncesi ile ilişkisini derinlemesine anlamamıza ve bu ilişkide koruyucu olarak rol alabilecek etkenleri bulmamıza yardımcı olacaktır.

Gizlilik

Anket sırasında verdiğiniz bilgiler, kimlik bilgilerinizle hiçbir koşulda eşleştirilmeyecektir. Sadece araştırma ekibi tarafından akademik amaçla kullanılacaktır. Verdiğiniz bilgiler, sadece araştırma ekibinin erişiminin olduğu şifreli bir veri tabanında saklanacaktır. Çalışma tamamlandıktan sonra bilgileriniz takip edilemeyecek bir şekilde geri dönüştürülecektir

Katılım ve Ayrılma

Bu çalışmanın içinde olmak isteyip istemediğinize tamamen kendi iradenizle ve etki altında kalmadan karar vermeniz önemlidir. Katılmaya karar verdikten sonra, herhangi bir anda sahip olduğunuz herhangi bir hakkı kaybetmeden veya herhangi bir yaptırıma maruz kalmadan istediğiniz zaman ayrılabilirsiniz.

ARAŞTIRMACILARIN KİMLİĞİ

Bu araştırma ile ilgili herhangi bir sorunuz veya endişeniz varsa, lütfen iletişime geçiniz:

Yukarıda yapılan açıklamaları okudum, anladım. Dilediğim zaman ayrılma hakkım saklı kalmak koşulu ile bu çalışmaya kendi isteğimle katılmayı:

- Kabul ediyorum
- Kabul etmiyorum

Appendix B: Demographic Questions

1. Yaşınız:

2. Cinsiyet:

    a. Kadın
    b. Erkek
    c. Diğer:

3. En son tamamladığınız eğitim seviyesi:
    a. İlkokul (4 Yıllık)
    b. İlkokul (5 yıllık)
    c. İlkokul (8 yıllık)
    d. Ortaokul
    e. Lise (3 yıllık)
    f. Lise (4 yıllık)
    g. Üniversite (2 yıllık)
    h. Üniversite (4 Yıllık)
    i. Üniversite (6 yıllık)
    j. Yüksek Lisans
    k. Doktora

4. İş durumunuz:

    a. İşsizim
        i. işsizlik süreniz: (ay olarak belirtiniz)
        ii. Daha önce bir işte çalıştınız mı?
            a. Evet
                i. Son işinizden ayrılma şekliniz:
                    a. Kovulma
                    b. İstifa
                    c. Diğer
    b. Sözleşmeli olarak tam zamanlı çalışıyorum
    c. Günlük ödeme alarak sözleşmesiz olarak çalışıyorum
    d. Yarı zamanlı çalışıyorum
    e. Çalışmıyorum ve iş arayışım yok.

5. Çalıştığınız ya da iş aradığını sektör:

    a. Hizmet
    b. Tarım
    c. Sanayi
    d. İnşaat
    e. Ticaret
    f. Diğer

6. Aşağıdaki tüm gelir kaynaklarını dikkate alarak (evli iseniz eşinizin ve sizin) toplam aylık gelirinizin hangi aralıkta yer aldığını belirtiniz.

Maaş (ek ödemeler dahil), Kira geliri , Serbest meslek geliri , Başkalarından alınan parasal ya da parasal değeri olan herhangi bir destek , Devlet, belediye ya da herhangi bir kurumdan alınan yardım yoluyla elde edilen gelir, işsizlik yardımı/maaşı, işle ilgili herhangi bir tazminat, sosyal güvenlik, engelli yardımı vb., Öğrenci burslarından alınan para , Hisse senedi, faiz, yatırımlar, nafaka, çocuk nafakası ve benzeri kaynaklardan elde edilen toplam gelir

Toplam aylık gelir:

a. 500 TL ve altı
b. 500-1000 TL
c. 1000-2000 TL
d. 2000-3000 TL
e. 3000-4000 TL
f. 4000-5000 TL
g. 5000 TL ve üzeri

8. Daha önce hiç intihar girişiminiz oldu mu?

a. Evet
b. Hayır

Appendix C: Multidimensional Scale of Perceived Social Support

Yönerge: Aşağıda 12 cümle ve her bir cümle altında da cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini işaretleyiniz. Lütfen hiçbir cümleyi cevapsız bırakmayınız. Sizce doğruya en yakın olan rakamı işaretleyiniz.

	1 - Kesinlikle hayır	2	3	4	5	6	7 – Kesinlikle evet
Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.							
Ailem ve arkadaşlarım dışında olan ve sevinç ve kederlerimi paylaşabileceğim bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.							
Ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır.							
İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin, annemden, babamdan, eşimden, çocuklarımdan, kardeşlerimden) alırım							
Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin, flört, nişanlı sözlü, akraba, komşu, doktor) var.							
Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar.							
İşler kötü gittiğinde arkadaşlarıma güvenebilirim.							
Sorunlarımı ailemle (örneğin, annemle, babamla, eşimle, çocuklarımla, kardeşlerimle) konuşabilirim.							
Sevinç ve kederimi paylaşabileceğim arkadaşlarım var.							
Ailem ve arkadaşlarım dışında olan ve duygularıma önem veren bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.							
Kararlarımı vermede ailem (örneğin, annem, babam, eşim,							

çocuklarım, kardeşlerim) bana yardımcı olmaya isteklidir.							
Sorunlarımı arkadaşlarımla konuşabilirim.							

Appendix D: Attribution to Unemployment (Scale for the unemployed participants)

Yönerge: Aşağıda belirtilen durumların işsiz olmanız ile ne derece doğrudan bağlantılı olduğunu işaretleyiniz.

	1-hiç bağlantılı değil	2	3	4	5- tamamen bağlantılı
Geçici hastalıklar					
Özel becerilerin eksikliği					
Fiziksel kusurlar					
Çok seçici olmak					
Kötü dış görünüşe sahip olmak					
Bazı işler için çok yaşlı olmak					
Bazı işler için çok genç olmak					
İş görüşmesinde yeterince iyi olamamak					
Eğitim eksikliği					
Tecrübe eksikliği					
Yeterince çabalamamak					
Bazı işlerin gidemeyeceğim kadar uzakta olması					
Çoğu iş sıkıcı ve monoton özellikler taşıdığından başvurmamak					
Şanssız bir insan olmak					
Bir işte çalışmayı istememek					
Çok fazla rekabet olması					
Geçici kötü şans					
Bulunduğum şehir dışında çalışmak istememek					
Devletin yeterli iş imkanı yaratmaması					
Özel sektörün yeterli iş imkanı sunamaması					
Özel sektördeki iş sayısında azalma					
İşverenlerin eğitim ve tecrübe konusunda gerçekçi olmayan beklentileri					
Türkiye'deki ekonomik durum					
Düşük maaş vermeleri nedeni ile işlere başvurmamak					

Appendix E: Attribution to Unemployment (Scale for the employled participants)

Yönerge: Eğer işsiz olsaydınız, aşağıda belirtilen durumların işsiz olmanız ile ne derece doğrudan bağlantısı olacağını işaretleyiniz.

	1-hiç bağlantılı değil	2	3	4	5- tamamen bağlantılı
Geçici hastalıklar					
Özel becerilerin eksikliği					
Fiziksel kusurlar					
Çok seçici olmak					
Kötü dış görünüşe sahip olmak					
Bazı işler için çok yaşlı olmak					
Bazı işler için çok genç olmak					
İş görüşmesinde yeterince iyi olamamak					
Eğitim eksikliği					
Tecrübe eksikliği					
Yeterince çabalamamak					
Bazı işlerin gidemeyeceğim kadar uzakta olması					
Çoğu iş sıkıcı ve monoton özellikler taşıdığından başvurmamak					
Şanssız bir insan olmak					
Bir işte çalışmayı istememek					
Çok fazla rekabet olması					
Geçici kötü şans					
Bulunduğum şehir dışında çalışmak istememek					
Devletin yeterli iş imkanı yaratmaması					
Özel sektörün yeterli iş imkanı sunamaması					
Özel sektördeki iş sayısında azalma					
İşverenlerin eğitim ve tecrübe konusunda gerçekçi olmayan beklentileri					
Türkiye'deki ekonomik durum					
Düşük maaş vermeleri nedeni ile işlere başvurmamak					

Appendix F: Social Problem Solving Inventory

Yönerge: Aşağıda günlük yaşamda problemlerle karşılaştığınızda ortaya çıkabilecek bazı düşünce, duygu ve davranış tarzlarınızla ilgili maddeler yer almaktadır. Burada genellikle karşılaştığınız sıradan güçlüklerden ya da her gün üstesinden başarıyla geldiğiniz baskılardan bahsedilmemektedir. Bu envanterde sözü edilen problem, yaşamınızda önemli bir yeri olan, size sıkıntı veren fakat üstesinden nasıl geleceğinizi ya da sizi rahatsız etmesini durduracağınızı bilmediğiniz bir şeydir. Bu problem düşünceleriniz, duygularınız, davranışlarınız, sağlığınız ya da fiziksel görünüşüz gibi kendinizle ilgili; aileniz, arkadaşlarınız, öğretmenleriniz, patronunuzla gibi diğer insanlarla ilişkilerinizle ilgili veya eviniz, arabanız, mal varlığınız, paranız gibi sahip olduğunuz şeylerle ve çevrenizle ilgili olabilir. Cümleleri okurken kendinizi bugünlerde bir problemle karşılaştığınızda her zaman düşündüğünüz, hissettiğiniz ve davrandığınız şekilde değerlendiriniz. Lütfen her cümleyi dikkatli bir şekilde okuyunuz ve cevap formunda bu cümlelerin size uygunluk derecesi "bana hiç uygun değil, bana çok az uygun, bana kısmen uygun, bana çok uygun, bana tamamen uygun" şeklindeki ifadelerden birine çarpı işareti (X) koyarak belirtiniz.

	Hiç uygun değil	Çok az uygun	Kısmen uygun	Çok uygun	Tamamen Uygun
Çözülmesi gereken önemli bir problemim olduğunda kendimi tehdit altında hisseder ve korku duyarım.					
Karar verirken, tüm seçenekleri yeterince dikkatli bir şekilde değerlendirmem.					
Önemli bir karar vermem gerektiğinde kendimi huzursuz hisseder ve kendimden emin olamam.					
Bir problemi çözmeye ilişkin başlangıçtaki çabalarım başarısızlıkla sonuçlandığında, ısrar eder ve çabucak vazgeçmezsem sonunda iyi bir çözüm bulabileceğime inanırım.					
Ne zaman bir problemim olsa, o problemin çözülebileceğine inanırım.					
Bir problemi kendi başıma çözmeye çalışmadan önce, ilk olarak o problemin kendiliğinden çözülüp çözülmeyeceğini görmek amacıyla bir şey yapmadan öylece durup beklerim.					
Bir problemi çözmeye ilişkin başlangıçtaki çabalarım başarısızlıkla sonuçlandığında, hayal kırıklığına uğrarım.					
Zor bir problemle karşılaştığımda ne kadar çok çabalasam da, o problemi kendi başıma çözebileceğimden şüphe duyarım.					
Hayatımda bir problem oluştuğunda, problemin çözümü için uğraşmayı olabildiğince uzun bir süre ertelerim.					
Hayatımdaki problemlerle uğraşmaktan kaçınmak için her yolu denerim.					
Zor problemler beni çok mutsuz eder.					
Vermem gereken bir karar olduğunda, her seçeneğin olumlu ve olumsuz sonuçlarını tahmin etmeye çalışırım.					
Hayatımda problemler ortaya çıktığında, mümkün olan en kısa sürede problemleri ele almak yani onlarla uğraşmak hoşuma gider.					

Bir problemi çözmeye çalışırken, aklıma gelen ilk iyi fikre göre hareket ederim.					
Zor bir problemle karşılaştığımda, yeterince gayret edersem o problemi kendi başıma çözebileceğime inanırım.					
Çözülmesi gereken bir problemim olduğunda, ilk yaptığım şeylerden biri problemle ilgili mümkün olduğu kadar çok bilgi edinmeye çalışmaktır.					
Problemleri çözmeyi, herhangi bir şey yapılamayacak hale gelinceye kadar ertelerim.					
Problemlerimden kaçınmaya onları çözmeye çalışmaktan daha fazla zaman harcarım.					
Bir problemi çözmeye çalışmadan önce, neyi başarmak istediğimi tam olarak bilmek için kendime belirli bir hedef oluştururum.					
Vermem gereken bir karar olduğunda, her seçeneğin avantaj ve dezavantajlarını gözden geçirmeye vakit ayırmam.					
Bir çözümü uygulamaya koyduktan sonra, durumun ne kadar iyi yönde değiştiğini mümkün olduğunca dikkatli bir biçimde değerlendirmeye çalışırım.					
Karşılaştığım bir problemi, olumlu bir şekilde yararlanacağım "bir fırsat" ya da "üstesinden gelinecek bir durum" olarak görmeye çalışırım.					
Bir problemi çözmeye çalışırken, yeni fikirler üretemez hale gelinceye dek mümkün olduğu kadar çok seçenek düşünürüm.					
Karar verirken, her seçeneğin sonuçları üzerinde pek fazla düşünmeden sezgilerimle hareket ederim.					
Karar verirken çok ani ve düşünmeden hareket ederim.					

Appendix G: Suicide Probability Scale

Yönerge: Aşağıda verilen ifadeleri okuyun ve size en uygun cevabı işaretleyin.

	Hiçbir zaman veya nadiren	Bazen	Sık sık	Çoğu zaman veya her zaman
1.Kızınca bir şeyler fırlatırım.				
2.Benimle candan ilgili pek çok kişi olduğuna inanıyorum.				
3.Düşüncesizce hareket etmeye eğilimli olduğumu sanıyorum.				
4.Başkalarına anlatılmayacak kadar kötü şeyler düşünüyorum.				
5.Çok fazla sorumluluğumun olduğunu düşünüyorum.				
6.Yapabileceğim faydalı pek çok şey olduğuna inanıyorum.				
7.Başkalarını cezalandırmak için intiharı düşünüyorum.				
8.Başkalarına karşı düşmanca duygular duyuyorum.				
9.Kendimi insanlardan soyutlanmış hissediyorum.				
10. İnsanların bana olduğum gibi değer verdiklerini hissediyorum.				
11. Ölürsem pek çok kişinin üzüleceğine inanıyorum.				
12. Kendimi dayanılamayacak kadar yalnız hissediyorum.				
13. İnsanların bana karşı düşmanca duygular içinde olduğunu hissediyorum.				
14. Yeni baştan başlayabilsem, hayatımda pek çok değişiklikler yapardım.				
15. Pek çok şeyi iyi yapamadığımı sanıyorum.				
16. Sevdiğim bir işi bulmakta ve sürdürmekte güçlük çekiyorum.				

17. Ölürsem hiç kimsenin beni özlemeyeceğini sanıyorum.				
18. İşlerim yolunda gidiyorsa benziyor.				
19. İnsanların benden çok şey beklediklerini hissediyorum.				
20.Yaptığım veya düşündüğüm şeyler için kendimi cezalandırmam gerektiğini düşünüyorum.				
21. Dünyanın yaşamaya değer bir yer olmadığını düşünüyorum.				
22. Geleceğim hakkında çok dikkatli bir şekilde plan yaparım.				
23. Güvenebileceğim pek fazla arkadaşım olmadığını hissediyorum.				
24. Ölsem insanların daha iyi olacağını hissediyorum.				
25. Böyle yaşamaktansa ölmenin daha az acı verici bir şey olduğunu düşünüyorum				
26. Kendimi anneme yakın hissediyorum/hissediyordum.				
27. Kendimi arkadaşlarıma yakın hissediyorum..				
28. Bir şeylerin düzeleceği konusunda umutsuzum.				
29. İnsanların beni ve yaptıklarımı onaylamadıklarını hissediyorum.				
30. Kendimi nasıl öldüreceğimi düşünüyorum.				
31. Para konusu beni endişelendiriyor.				
32. İntihar etmeyi düşünüyorum. 33. Kendimi yorgun ve kayıtsız hissediyorum.				
34. Tepem atınca (kızınca) bir şeyler kırarım.				
35. Kendimi babama yakın hissediyorum/hissediyordum.				
36. Nerede olursam olayım mutlu olamayacağımı sanıyorum				