

The Hidden Burden: Exploring Psychopathology in Witnesses

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Abstract: An individual's mental health can be significantly impacted by witnessing traumatic events such as crime. This paper aims to examine the psychopathological symptoms that may onset after witnessing such events, including acute stress disorder (ASD), post-traumatic stress disorder (PTSD), substance abuse, anxiety disorders, depression, dissociative disorders, paranoia, adjustment disorders, sleep and eating disorders, and dissociative disorders. The findings suggest that the literature on possible psychopathologies that can be seen after witnessing is limited, more empirical research on this field is needed, and the psychological consequences of witnessing should be examined in detail. Moreover, witness distress is a result of a variety of factors, including the court procedure, regularly giving testimony, and the emotionally charged nature of the trials. Therefore, this paper also underscores the necessity of customised interventions and support systems for witnesses. There seems to be a clear need for identifying the unique psychopathological symptoms that witnesses may show since this will allow for specific treatment methods and better assistance for this vulnerable group.

Keywords: witness, psychopathology, forensic interview, police

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Gizli Yük: Tanıklarda Görülebilecek Psikopatolojilerin İncelenmesi

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Özet: Suç gibi travmatik olaylara tanık olmak, ruh sađlığını önemli ölçüde etkilemektedir. Bu makalede akut stres bozukluđu (ASB), travma sonrası stres bozukluđu (TSSB), madde kullanımı, anksiyete bozuklukları, depresyon, disosiyatif bozukluklar, paranoya, uyum bozuklukları, uyku ya da iřtah problemleri gibi tanıklıktan sonra ortaya çıkabilecek psikolojik belirtiler tartışılmaktadır. Sonuçlar, tanıklık sonrası görülebilecek olası psikopatolojilerle ilgili literatürün kısıtlı olduđunu, daha fazla ampirik arařtırmaya ihtiyaç duyulduđunu, tanık olmanın psikolojik sonuçlarının ayrıntılı incelenmesi gerektiđini göstermektedir. Ayrıca, tanıklık stresinin mahkeme prosedürü, düzenli olarak ifade vermek, duruşmaların duygu yoğun olması gibi çeşitli faktörlerden kaynaklanabileceđi görülmektedir. Bu nedenle, tanıklık durumuna özgün müdahale programlarının geliştirilmesi ve yasal düzenlemelerin yapılması gerekmektedir. Bu çalışma, kendine özgü özellikleriyle tanıkların hassas bir grup olarak ele alınmalarının ve olası psikolojik semptomlarının belirlenmesinin gerekliliđine açık bir şekilde iřaret ederken, bu yaklaşım uygun psikolojik destek almalarının sađlanması açısından büyük önem taşımaktadır.

Anahtar Kelimeler: tanıklık, görgü tanıklıđı, psikopatoloji, ifade verme, adli görüşme,

The Hidden Burden: Exploring Psychopathology in Adult Witnesses

Crime consists of three persons: victim, offender, and witness. One of the most important elements undertaking the foundation of the justice system is that the prosecutors and the judges reach the most accurate results from the data obtained on a crime or dispute. Therefore, witnesses are often the most important people in making this decision properly. However being a witness can be a very overwhelming experience since most of the time these people are both witnesses and the victim of a crime (Howard et al., 2002). Not only that, testifying in a court is very stressful due to the court environment, ambiguity in the situation, being inexperienced with legal procedures, seeing the suspects and feeling threatened by them and undergoing recurrent interviewing processes (Hayes & Bunting, 2013). This overwhelming situation may affect both the statements in the court and psychological wellness of the witnesses. Hence, it is very important to take the psychology of the witnesses into account for the sake of the justice system. Considering this situation, current study aims to focus on possible psychopathologies that witnesses may experience and fill the gap related to the mental health of the witnesses in the literature.

When the literature is reviewed, it is seen that research on witnessing focus mostly on engagement with the police (Collins et al., 2002; Koster, 2017), delivering information (Aldridge & Cameron, 1999), and the testifying (Chong & Connolly, 2015). Witnessing a crime sometimes also mean witnessing a person being harmed. Cognitive studies have also revealed important findings suggesting that the witness may be harmed psychologically just by watching the event. For example, perspective-taking requires encoding one's environment from the perspective of another individual. It means that people mentally put themselves in the shoes of another person and experience their surroundings as if they were that person. In other words, the observer synchronises their focus with that of the subject they are watching (Frischen et al., 2009). Further, the primary somatosensory cortex's neuronal activity is influenced by the perception of the pain experienced by others, just like the mirror-neuron system that is related to empathy (Cheng et al., 2008). Considering the crime environment, it may be claimed that the crime witness is not just a person who observes the incident from a distance but also the one who experiences it firsthand. In this context, it might be argued that the question "what happens to the witness after witnessing" requires both quantitative and qualitative studies to fully characterize the tendencies and alterations after witnessing. The experiences of the witnesses can be better illustrated via qualitative research. For instance, in a study of young witnesses who were both witnesses and/or victims, the court process itself was reported to be stressful by witnesses, such as delays or long waiting times in court (Hayes & Bunting, 2013). Considering the evocative effect of the judicial processes, it can be claimed that

repeatedly testifying or being interviewed as a witness has a negative effect on psychological health (Henry, 1997; Quas et al., 2005). Despite this delicate situation, when we look at the literature it is seen that there are only a few studies on the psychopathology due to witnessing. Although this lack of data is mostly due to the confidentiality principle of witness protection programs, for the field practice, it is crucial to examine the psychopathological symptoms that may appear after witnessing and to take the required actions for the treatment processes, especially given that some witnesses may testify repeatedly. Considering that these people must live with the identity of "witness" for a very long time, identifying and responding to psychological symptoms of witnesses is of great importance for both the effectiveness of witness protection programs and the well-being of witnesses in these programs. Since the literature on this field is limited, the data related to other fields are also gathered.

This paper was written in order to integrate the issues to be examined concerning various psychopathologies that witnesses may face due to witnessing. The inclusion criteria of studies have not imposed any limits, because of the conflicted roles of the people who involved crime as both witnesses and victims.

Acute Stress Disorder (ASD) and Post-Traumatic Stress Disorder (PTSD)

Acute stress disorder is a detrimental psychological problem that can emerge quickly following an acute stressor exposure. Symptoms such as pervasive thoughts, heightened alertness, and avoidance of circumstances that reminds the traumatic experience are similar to those of posttraumatic stress disorder, but they persist no more than four weeks. The acute stress disorder might also involve dissociative symptoms such as depersonalization and derealization (APA Dictionary of Psychology, n.d.-a). While post traumatic stress disorder and acute stress disorder are quite similar and controversial, Kring et al., (2015) emphasize that they are distinct diagnoses in accordance with DSM 5. Components such as experiencing a traumatic event, avoidance of reminders of the event, mood and cognitive changes (e.g. inability to remember, emotional bluntness), increased arousal and reactivity (e.g. irritability, self-harming behaviors) are similar for both disorders. However, duration is the main determining criterion between the two diagnoses; for PTSD, symptoms must last for more than one month.

A study conducted with military medical staff in Washington DC after multiple terrorist attacks has revealed how traumatic events may affect witnesses afterwards, even if not at the time of the incident. It was discovered that acute stress and depression levels were comparable to those encountered in a natural disaster or the 9/11 attacks. Around 40% of the sample reported feelings of lack of security and a high sense of perceived threat. Compared to men, women were more likely

to report lower safety feelings, a greater sense of threat, and irregular conduct. Greater levels of peritraumatic dissociation were linked to acute stress disorder, increased alcohol use, and depression, whereas reduced safety, higher perceived risk, and decreased activities were more strongly linked to acute stress disorder and increased alcohol use. These results highlight the need for additional study into how information is interpreted during terrorist attacks and how that affects people's psychological and behavioural responses (Grieger et al., 2003).

In addition, people might become witnesses through the use of media and be affected cognitively and emotionally even if they are not a part of the events. For example, an association was found between the amount of time spent watching TV on 9/11 and the onset of full or subsyndromal PTSD symptoms. Furthermore, it was seen that those who experienced higher stress during 9/11 and sympathised deeply with the victims of this event were more likely to suffer full or subsyndromal PTSD symptoms (Otto et al., 2007a).

Nevertheless, not everyone who witnesses a traumatic event will develop PTSD or ASD. It is therefore important to understand the factors that influence the onset of the symptoms. A study found trustworthy effect sizes for the predictors of these disorders and separated them into two classes as proximal predictors (such as perceived life threat, perceived support from others, peritraumatic affection, and peritraumatic dissociation) and distal indicators (such as prior adaptation, prior trauma history, and family history of psychopathology) (Ozer et al., 2003). It is thought that the same factors might be effective in the development of both disorders.

Depression

Depression, which is more than just unhappiness in its simplest form, affects the functioning of daily life, causes sleep or appetite problems and is associated with cognitive problems such as not being able to concentrate, or feelings of extreme guilt/worthlessness (American Psychological Association (APA), n.d.). Similarly, witnessing is a condition that the person attempts to have an impact on a constrained situation and that results in feelings of guilt and worthlessness, particularly when things go wrong. It is found that a sense of mastery serves as the most significant mediator in the interaction between depression and witnessing violence (Muller, 2016). The mastery element, which Conger et al. (2009) mentioned as the perception of having control through life, stands as the most remarkable mediator variable and thereby reveals an important point about giving testimony. Just being a witness can damage the perception of control. The person's options are much more constrained once the legal procedure began. For example, the arrest of the criminal or the trial processes involve conditions that the witness cannot control.

Another study on senior adults who witnessed violence at least once in their lifetimes revealed that witnessing violence is linked with symptoms of depression

in older women and excessive alcohol consumption in older males. Furthermore, the age at which the violence was experienced is unimportant, so witnessing violence at any age comes with a risk (Sha Juan Colbert & Krause, 2009). These findings indicate that witnessing a crime increases the likelihood of revealing one's already existing emotional and behavioral patterns. In this case, the individual's emotion regulation skills come to the fore.

Anxiety Disorders

Another diagnosis, which is common, chronic and often comorbid with other diagnoses, is anxiety disorders (McEvoy et al., 2011). Anxiety disorders include panic disorder, phobias and generalized anxiety disorder and are characterized by extreme emotions of fear, concern or anxiousness (APA Dictionary of Psychology, n.d.-b). Studies on anxiety and crime demonstrate that anxiety does not occur independently and that vulnerable groups such as children and women carry higher risks for anxiety disorders. Currently, it has been uncovered that a number of variables, such as being a woman, having a mental disease history in the family, having a chronic medical condition, or not working, are related to anxiety (McEvoy et al., 2011). For example, a study on countrified American women found that witnessing violence in the residents even if they were not involved in had an important impact on the symptoms of depression and anxiety (Clark et al., 2008). In fact, there is no need to be the witness of a crime, even the fear of crime which is a response characterised by a sense of risk for bodily injury, increases the anxiety and depression symptoms in juvenile (Grinshteyn et al., 2017). Another study indicates that witnessing a crime has diverse effects on teenagers' mental state. While the violence witnessed at home is linked to anxiety and aggressiveness, violence witnessed at school is associated with anxiety and depression, and violence witnessed in the community is linked to criminality (Mrug & Windle, 2010). Another remarkable finding is that anxiety is commorbid with substance use at younger ages and it can be seen together with depression at any age (McEvoy et al., 2011). So it can be suggested that young people who have witnessed crime might also have a risk for both symptoms of anxiety and substance abuse.

Substance Use Disorders

Studies indicate that a variety of substance usage is closely associated with having a traumatic experience and developing posttraumatic stress responses in young people as well as adults (Blumenthal et al., 2008). Being there when a crime is being committed can be traumatising, but it also means being in an environment that includes risk factors such as being a gang member, especially for young people. Adolescents who have witnessed a crime are more likely to engage in risky sexual activities and in an indirect way are likely to abuse substances, even when demographic factors are taken into account (Voisin et al., 2008). It is argued

that experiencing violence in adolescence is associated with excessive alcohol consumption, use of cocaine or methamphetamine, and cannabis consumption in adulthood. It was shown that just the threats of violence in puberty increases substance abuse in adulthood and the exposure to violent acts (with gun or cutting tool) has greater impact on risk of addiction (Beharie et al., 2019). It is seen that even if studies on substance use and crime witnessing in adults are scarce, studies on adolescents are noteworthy. Therefore, there seems to be a clear need for studies and effective intervention strategies on adolescents who witnessed crime to protect them from substance abuse problems.

Adjustment Disorders

Although adjustment and adaptation are closely related concepts, it is critical to comprehend the distinctions between the two in order to explain the odd behaviours that people who witnessed traumatic events may experience. Adjustment is associated with the response to a psychological stressor. The stressor can be both traumatic events or non-traumatic experiences such as interpersonal conflicts. If there are maladaptive emotional and/or behavioural reactions that is disproportionate to the degree of the stressor, this is called as adjustment disorder that includes behaviors that are not culturally or socially expected (O'donnell et al., 2019). Being emotionally stable and capable of handling life's challenges indicates that the person is well-adjusted. On the other hand, adaptation describes the act of altering something to make it appropriate for a new circumstance or environment (Abdullah, 2020).

In this context, witnessing violence was found linked with intrusive thinking, difficulties concentrating, and heightened alertness (Howard et al., 2002). According to research on teenagers, witnessing violence may have an equal effect on conduct disorder symptoms as actually experiencing it. Adolescents who witnessed violence has a higher likelihood of experiencing adjustment difficulties in the two years following (Janosz et al., 2018).

It can be said that studies on adjustment in adults are insufficient, however adaptation should be emphasized as well. In uncommon circumstances, a witness may be placed in the Witness Protection Programme to ensure their safety. People who are physically protected try to adapt to new conditions by leaving their old living spaces, jobs and even their identities. Personal characteristics such as age, ethnicity, and education level, as well as the environmental factors such as strict rules, biographical and social dislocation, or threat, may cause stress for witnesses entering the Witness Protection Programme. As a result, they may have adaptation problems due to this stress (Beune & Giebels, 2013). Even if psychosocial support is provided within the program, it is important for the mental health of the witnesses that the program practitioners know that the witnesses are vulnerable and they should take appropriate precautions.

Sleeping/Eating Disorders

Sleep and appetite problems, which may be the most common symptoms of adjustment problems, are also the most frequent problems that would be seen after testimony. Almost half of the young witnesses who will testify and their parents state that they have sleep and eating problems before the court (Hayes & Bunting, 2013). Similarly, it is well established that eating problems are frequently linked to a personal trauma history (Holzer et al., 2008). These results indicate that the impacts of witnessing on eating behaviours should be studied carefully in order to prevent long term problems with eating behaviors in this vulnerable group. Besides these, sleep issues before the courtroom proceedings as well as those noticed after the testimony provide a challenge. Lack of sleep before a traumatic or a very stressful event exhaust emotional, cognitive and physical resources which are necessary to cope with the situation. Sleep problems may worsen post-traumatic adjustment problems by functioning as an extra stressor after the main trauma, thus prior sleep impairments may cause substance use and be related to psychiatric disorders such as depression and anxiety disorders (Bryant et al., 2010). The literature demonstrates that witnesses with sleep problems are a more vulnerable group in terms of mental diseases. Furthermore, the probability of developing PTSD is increased by the existence of sleep issues following exposure to a traumatic incident. Additionally, even after effective PTSD interventions, sleep difficulties are frequently persistent symptoms. Lastly, it has been demonstrated that treating sleeplessness decreases the amount of symptoms linked to PTSD (Babson & Feldner, 2010). In short, it can be argued that if the testimony procedure is handled in a multifaceted way, future symptoms that may develop in witnesses might be prevented.

Discussion

It should be noted that the symptoms and disorders mentioned above are interrelated and this article may not have covered all possible symptoms or diagnoses that might be seen in witnesses. However, this condition demonstrates the need for a re-evaluating process of psychopathologies in witnesses. Despite the fact that witnesses require mental health support and treatment, it appears that there is a gap with the studies and practises in the field (Irma Yulistyani et al., 2022).

Although psychosocial support is provided to witnesses who are taken into the witness protection program (Beune & Giebels, 2013), community-based preventive mental health programs need to be organized for people who are not in the protection program and who are affected by the events they have been exposed to. In order to persuade people to testify and improve the effectiveness of the witness protection programme, which is a variable influencing people's willingness to give statements (Demir, 2018), psychological interventions should be prepared

and prioritised, and more empirical studies should be conducted in this area.

Furthermore, to protect witnesses from being exposed to traumatic events repeatedly or attending the stressful environment of the courts, political arrangements should be made that will benefit from technological opportunities. Being exposed to traumatic events through the media is a way to be witness too, which can harm mental health and have negative consequences such as PTSD symptoms (Otto et al., 2007b; Solomon et al., 2021). Thus it is suggested that future research ought to put a greater emphasis on how the media interacts with social trauma in criminal settings. The effect of true crime television programs also need to be reviewed and rethought. This kind of interactions may impact on people's perspective and cognitions, for example, make people more skeptical and create an issue of trust. Moreover, practitioners with knowledge of testimony should be present in the court procedure to ensure that witnesses receive appropriate treatment or to protect them from being misdiagnosed. Regarding this, it can be argued that witnesses should reach out those experts easily, who would refer them to appropriate clinics during after the court processes.

The subject of what psychopathology is a matter of practice in the field. It should be noted that not every inappropriate behavior is psychopathology. However, without an official diagnosis, criminal justice practitioners frequently assume that a witness has a mental illness, which might have an effect on how the eyewitness and their testimony are handled during the investigation (Parsons et al., 2023). The prejudgmental behaviour of police officers or the prosecutors may affect the willingness to testify or the way of perception of witnesses. From the perspective of a citizen, stigmatisation can alter people's cognition and behaviour for a diagnosis or treatment, which may affect how they function in the world (Dinos et al., 2004). Moreover, this kind of stigma may cause negative attitudes towards the police and the justice system. Lastly, the legal procedures may be carried out more effectively by conducting courses for law enforcement personnel on general mental health topics to arise awareness and knowledge. Such a training on how to approach people with mental illness without stigmatising them, highlighting the vulnerability of the witnesses and how to assist the witnesses to find proper mental health services may be beneficial for both witnesses' mental health and the justice system.

Reference

- Abdullah, M. Q. (2020). Adjustment and Mental Health: Contemporary View. *Journal of Educational & Psychological Research*, 2(1). <https://doi.org/10.33140/JEPR.02.01.01>
- Aldridge, J., & Cameron, S. (1999). Interviewing Child Witnesses: Questioning Techniques. *Applied Developmental Science*, 3(2), 136–147.
- American Psychological Association (APA). (n.d.). *Depression*.
- APA Dictionary of Psychology. (n.d.-a). *Acute stress disorder (ASD)*.
- APA Dictionary of Psychology. (n.d.-b). *Anxiety disorder*.
- Babson, K. A., & Feldner, M. T. (2010). Temporal relations between sleep problems and both traumatic event exposure and PTSD: A critical review of the empirical literature. In *Journal of Anxiety Disorders* (Vol. 24, Issue 1, pp. 1–15). <https://doi.org/10.1016/j.janxdis.2009.08.002>
- Beharie, N., Scheidell, J. D., Quinn, K., McGorray, S., Vaddiparti, K., Kumar, P. C., Frueh, B. C., Boone, L., & Khan, M. R. (2019). Associations of Adolescent Exposure to Severe Violence with Substance Use From Adolescence into Adulthood: Direct Versus Indirect Exposures. *Substance Use and Misuse*, 54(2), 191–202. <https://doi.org/10.1080/10826084.2018.1495737>
- Beune, K., & Giebels, E. (2013). *The Management of Protected Witnesses: A behavioural Perspective*. University of Twente.
- Blumenthal, H., Blanchard, L., Feldner, M., Babson, K., Leen-Feldner, E., & Dixon, L. (2008). Traumatic Event Exposure, Posttraumatic Stress, and Substance Use Among Youth: A Critical Review of the Empirical Literature. *Current Psychiatry Reviews*, 4(4), 228–254. <https://doi.org/10.2174/157340008786576562>
- Bryant, R. A., Creamer, M., O'Donnell, M., Silove, D., & McFarlane, A. C. (2010). Sleep Disturbance Immediately Prior to Trauma Predicts Subsequent Psychiatric Disorder. *Sleep*, 33(1), 69–74.
- Cheng, Y., Yang, C.-Y., Lin, C.-P., Lee, P.-L., & Decety, J. (2008). The perception of pain in others suppresses somatosensory oscillations: A magnetoencephalography study. *NeuroImage*, 40(4), 1833–1840. <https://doi.org/10.1016/j.neuroimage.2008.01.064>
- Chong, K., & Connolly, D. A. (2015). Testifying through the ages: An examination of current psychological issues on the use of testimonial supports by child, adolescent, and adult witnesses in Canada. *Canadian Psychology / Psychologie Canadienne*, 56(1), 108–117. <https://doi.org/10.1037/a0037742>
- Clark, C., Ryan, L., Kawachi, I., Canner, M. J., Berkman, L., & Wright, R. J. (2008). Witnessing community violence in residential neighborhoods: A mental health hazard for urban women. *Journal of Urban Health*, 85(1), 22–38. <https://doi.org/10.1007/s11524-007-9229-8>
- Collins, R., Lincoln, R., & Frank, M. G. (2002). The effect of rapport in forensic interviewing. *Psychiatry, Psychology and Law*, 9(1), 69–78. <https://doi.org/10.1375/pplt.2002.9.1.69>
- Conger, K. J., Williams, S. T., Little, W. M., Masyn, K. E., & Shebloski, B. (2009). Development of Mastery during Adolescence: The Role of Family Problem Solving *. In *J Health Soc Behav. Author manuscript* (Vol. 50, Issue 1).
- Demir, M. (2018). The Perceived Effect of a Witness Security Program on Willingness to Testify. *International Criminal Justice Review*, 28(1), 62–81. <https://doi.org/10.1080/10826084.2018.1495737>

- org/10.1177/1057567717721298
- Dinos, S., Stevens, S., Serfaty, M., Weich, S., & King, M. (2004). Stigma: the feelings and experiences of 46 people with mental illness. *British Journal of Psychiatry*, *184*(2), 176–181. <https://doi.org/10.1192/bjp.184.2.176>
- Frischen, A., Loach, D., & Tipper, S. P. (2009). Seeing the world through another person's eyes: Simulating selective attention via action observation. *Cognition*, *111*(2), 212–218. <https://doi.org/10.1016/j.cognition.2009.02.003>
- Grieger, T. A., Fullerton, C. S., Ursano, R. J., & Reeves, J. J. (2003). Acute Stress Disorder, Alcohol Use and Perception of Safety Among Hospital Staff After the Sniper Attacks. *Psychiatric Services*, *54*(10), 1383–1387.
- Grinshteyn, E. G., Cunningham, W. E., Eisenman, D. P., Andersen, R., & Ettner, S. L. (2017). Fear of violent crime and anxiety/depression among adolescents. *Mental Health and Prevention*, *8*, 39–45. <https://doi.org/10.1016/j.mhp.2017.07.002>
- Hayes, D., & Bunting, L. (2013). “Just be Brave” - The Experiences of Young Witnesses in Criminal Proceedings in Northern Ireland. *Child Abuse Review*, *22*(6), 419–431. <https://doi.org/10.1002/car.2242>
- Henry, J. (1997). System Intervention Trauma to Child Sexual Abuse Victims Following Disclosure. *Journal of Interpersonal Violence*, *12*(4), 499–512. <https://doi.org/10.1177/088626097012004002>
- Holzer, S. R., Uppala, S., Wonderlich, S. A., Crosby, R. D., & Simonich, H. (2008). Mediation significance of PTSD in the relationship of sexual trauma and eating disorders. *Child Abuse & Neglect*, *32*(5), 561–566. <https://doi.org/10.1016/j.chiabu.2007.07.011>
- Howard, D. E., Feigelman, S., Li, X., Cross, S., & Rachuba, L. (2002). The Relationship Among Violence Victimization, Witnessing Violence, and Youth Distress. *Journal of Adolescent Health*, *31*, 455–462.
- Irma Yulistyani, N., Ma, U., & Witasari, A. (2022). Effectiveness and Problems of Implementation of Assistance for Witnesses. *Law Development Journal*, *4*.
- Janosz, M., Brière, F. N., Galand, B., Pascal, S., Archambault, I., Brault, M. C., Moltrecht, B., & Pagani, L. S. (2018). Witnessing violence in early secondary school predicts subsequent student impairment. *Journal of Epidemiology and Community Health*, *72*(12), 1117–1123. <https://doi.org/10.1136/jech-2018-211203>
- Koster, N.-S. N. (2017). Victims' perceptions of the police response as a predictor of victim cooperation in the Netherlands: a prospective analysis. *Psychology, Crime & Law*, *23*(3), 201–220. <https://doi.org/10.1080/1068316X.2016.1239098>
- Kring, A. M., Johnson, S. L., Davidson, G., & Neale, J. (2015). *Anormal Psikoloji* (M. Şahin, Ed.; 12th ed., Vol. 1332). Nobel Akademik Yayıncılık.
- McEvoy, P. M., Grove, R., & Slade, T. (2011). Epidemiology of Anxiety Disorders in the Australian General Population: Findings of the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian & New Zealand Journal of Psychiatry*, *45*(11), 957–967. <https://doi.org/10.3109/00048674.2011.624083>
- Mrug, S., & Windle, M. (2010). Prospective effects of violence exposure across multiple contexts on early adolescents' internalizing and externalizing problems. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *51*(8), 953–961. <https://doi.org/10.1111/j.1469-7610.2010.02222.x>
- Muller, P. A. (2016). Witnessing Violence Versus Experiencing Violence: Effects on

- Psychological Distress. *Mediterranean Journal of Social Sciences*. <https://doi.org/10.5901/mjss.2016.v7n3s1p11>
- O'donnell, M. L., Agathos, J. A., Metcalf, O., Gibson, K., & Lau, W. (2019). Adjustment disorder: Current developments and future directions. In *International Journal of Environmental Research and Public Health* (Vol. 16, Issue 14). MDPI AG. <https://doi.org/10.3390/ijerph16142537>
- Otto, M. W., Henin, A., Hirshfeld-Becker, D. R., Pollack, M. H., Biederman, J., & Rosenbaum, J. F. (2007a). Posttraumatic stress disorder symptoms following media exposure to tragic events: Impact of 9/11 on children at risk for anxiety disorders. *Journal of Anxiety Disorders*, 21(7), 888–902. <https://doi.org/10.1016/j.janxdis.2006.10.008>
- Otto, M. W., Henin, A., Hirshfeld-Becker, D. R., Pollack, M. H., Biederman, J., & Rosenbaum, J. F. (2007b). Posttraumatic stress disorder symptoms following media exposure to tragic events: Impact of 9/11 on children at risk for anxiety disorders. *Journal of Anxiety Disorders*, 21(7), 888–902. <https://doi.org/10.1016/j.janxdis.2006.10.008>
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. In *Psychological Bulletin* (Vol. 129, Issue 1, pp. 52–73). American Psychological Association Inc. <https://doi.org/10.1037/0033-2909.129.1.52>
- Parsons, B., Wilcock, R., & Kneller, W. (2023). Criminal Justice Practitioners' Perceptions of Eyewitnesses with Anxiety and Depression. *Journal of Police and Criminal Psychology*, 38(1), 117–126. <https://doi.org/10.1007/s11896-021-09492-5>
- Quas, J. A., Goodman, G. S., Ghetti, S., Alexander, K. W., Edelstein, R., Redlich, A. D., Cordon, I. M., Jones, D. P. H., & Haugaard, J. J. (2005). Childhood Sexual Assault Victims: Long-Term Outcomes after Testifying in Criminal Court. *Monographs of the Society for Research in Child Development*, 70(2), i–139.
- Sha Juan Colbert, & Krause, N. (2009). Witnessing Violence Across the Life Course, Depressive Symptoms, and Alcohol Use Among Older Persons. *Health Education & Behavior*, 36(2), 259–277. <https://doi.org/10.1177/1090198107303310>
- Solomon, Z., Ginzburg, K., Ohry, A., & Mikulincer, M. (2021). Overwhelmed by the news: A longitudinal study of prior trauma, posttraumatic stress disorder trajectories, and news watching during the COVID-19 pandemic. *Social Science & Medicine*, 278, 113956. <https://doi.org/10.1016/j.socscimed.2021.113956>
- Voisin, D. R., Neilands, T. B., Salazar, L. F., Crosby, R., & DiClemente, R. J. (2008). Pathways to Drug and Sexual Risk Behaviors among Detained Adolescents. *Social Work Research*, 32(3), 147–157. <https://doi.org/10.1093/swr/32.3.147>