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Graduate School of Education and Psychology

A SYSTEMATIC REVIEW OF THE PSYCHOLOGICAL EFFECTS OF WAR ON CHILDREN FROM CROATIA

A clinical dissertation proposal submitted

of the requirements for the degree of

Doctor of Psychology

by

Zaneta Mudrovcic

October, 2023

Shelly P. Harrell, Ph.D. – Dissertation Chairperson

This clinical dissertation, written by

Zaneta Mudrovcic Student

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

Doctoral Committee:

Shelly P. Harrell, Ph.D., Chairperson

Erlanger Turner, Ph.D.

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DEDICATION

For my hero, my tata (dad), Zlatko, who died in the war. You were my shining star that guided me through life during challenging times. This review is in honor of you.

For my best friend, my mama, Marta, who has been my strength and rock my whole life. Everything that I accomplished was because of yours and Zdenko's (my second father) support. Hvala Vam!

For my grandmother Emilija, who loved me unconditionally and was always there for me, no matter what. Hvala bako!

For my two younger brothers, Josip and Franjo, with whom I could always be my true authentic self. So grateful to have you both in my life!

For all the rest of my family and Croatian people who survived or died in The Croatian War of Independence or Homeland War (1991-1995).

For my hometown, Vukovar, grad heroja (city of heroes).

And for all the children and people in the world who are impacted with the terrors of the war.

ACKNOWLEDGMENTS

I am deeply indebted and thankful to my chairperson and mentor, Dr. Shelly P. Harrell. She interviewed me when I applied to Pepperdine University and has been a role model for me. Thank you for believing in me! Without your guidance and support, I wouldn't be where I am today. Special thanks to my committee member, Dr. Erlanger A. Turner, who was on my prelims committee as well. Your feedback and guidance were very helpful.

I would also like to express my deepest appreciation and gratitude to Dr. Thema S. Bryant-Davis, Dr. Barbara Ingram, and Dr. LaTonya Wood, Pepperdine professors, who mentored me throughout my graduate studies and were there for me during distressing times.

VITA

EDUCATION

Doctor of Psychology in Clinical Psychology **Graduation: May 2023**
Pepperdine University, Graduate School of Education and Psychology
Master of Arts in Clinical Psychology with Emphasis in Marriage and Family Therapy
Pepperdine University, Graduate School of Education and Psychology **May 2018**
Bachelor of Arts in Psychology
California State University, Northridge **May 2016**

CONTINUING EDUCATION

Gestalt Training Program
Gestalt Associate Training Los Angeles **September 2021 - Present**
Supervisor: Dr. Robert Resnick and Dr. Rita Resnick

- 3-year program
- Work as a therapist under live supervision
- Will complete 252 hours in Gestalt Individual Therapy

Gestalt Training Program
Gestalt Associate Training Los Angeles **June 2014, July 2015, July 2018**
European Summer Residential
Supervisor: Dr. Robert Resnick and Dr. Rita Resnick

- Completed 82 hours in Gestalt Couples Therapy for Therapist in Europe
- Worked with couples/role models in a therapeutic environment
- The program consisted of theoretical, supervisory, and experiential components
- Development of a good basic theoretical background in Gestalt Therapy
- Develop the basic technical skills required in Experiential/Gestalt psychotherapy
- Participated as a model couple for research and educational purposes
- APA accredited

LANGUAGE SKILLS

Fluent in spoken and written Croatian. Basic conversational Spanish.

PROFESSIONAL EXPERIENCE

Doctoral Intern **August 2022- Present**
University of California, Irvine, Counseling Center, Irvine, California
Supervisor: Dr. Saimir Thano

- Conduct brief and long-term therapy with a wide array of students representing a spectrum of demographic and cultural backgrounds, clinical presentations, and treatment needs
- Provide 15-20 hours of therapy a week
- Complete integrated psychological assessment
- Conduct weekly CBT group for social anxiety
- Receive a minimum of two hours of supervision per week
- Attended weekly seminars

- Attended weekly case conferences

Doctoral Program Teaching Assistant **September 2021- December 2021**

Pepperdine University, Graduate School of Education and Psychology
Supervisor: Dr. Shelly Harrell

- Course: 1st Year PsyD class, Sociocultural Foundations of Behavior
- Facilitate a weekly 1-hour diversity group discussion section of seven 1st year doctoral students
- Review weekly journal entries
- Watch videotaped dyadic practice interviews and provided feedback
- Attend weekly TA meeting to debrief, plan, and implement the learning of how to teach diversity, deepen diversity-related knowledge and skills, and lead class discussions

Psychology Extern **August 2021- May 2022**

University of Southern California Counseling Center, Los Angeles, California
Supervisor: Dr. Dakari Quimby

- Conduct individual therapy sessions with a USC diverse undergraduate and graduate students
- Provide rapid stabilization and crisis intervention to walk-in students
- Carries a caseload of 9 clients each semester
- Conduct individual intake assessment, including formulating a diagnosis and treatment plans
- Co-facilitate various groups for group therapy
- Utilize targeted interventions within a time-limited psychotherapy model
- Provide clients with referrals for community resources
- Participate in consultation with a multidisciplinary team
- Participated in weekly group and individual supervision
- Receive one hour of individual supervision with a licensed psychologist and an additional hour of individual supervision from a psychology intern
- Incorporate constructive feedback from supervision of videotaped psychotherapy sessions

Psychology Extern **January 2021- August 2021**

Pepperdine Community Counseling Center, Encino, California
Supervisor: Dr. Anett Assilian, Psy.D.

- Conducted individual long-term therapy and developed treatment plans for clients
- Completed in-depth intake interviews with adult clients
- Wrote comprehensive intake reports within a timely manner after conducting initial client interviews
- Administered Outcome Questionnaire and Patient Health Questionnaire and utilized results to help develop and employ effective interventions
- Attended weekly individual supervision

Psychology Extern **August 2020- May 2021**

Pepperdine University Counseling Center, Malibu, California
Supervisor: Dr. Bassey Akpan, Psy.D.

- Conducted individual therapy sessions with a university undergraduate and graduate student from diverse backgrounds
- Conducted screenings for appropriate clients for group therapy
- Co-facilitated various groups for group therapy
- Utilized targeted interventions within a time-limited psychotherapy model
- Employed clinical skills including rapport building, goal setting, and treatment planning
- Presented cases and participated in weekly group and individual supervision
- Incorporate constructive feedback from supervision of videotaped psychotherapy sessions
- Completed documentation, including intake reports, treatment plans, progress notes, and discharge plans according to clinic expectations
- Attended staff meetings and trainee seminar

Psychology Extern **August 2019- June 2020**

Del Amo Hospital (UHS Psychiatric Hospital), Torrance, California
Supervisor: Dr. Joseph Dadourian, EDD

- Provided services to a culturally diverse population ranging from young children to older adults hospitalized due to danger to self, other or gravely disabled (5150 Designated)
- Provided Psychosocial Assessments (intake), Crisis & Safety Plans, and psychological assessments to patients
- Conducted group therapy, crisis intervention, and milieu therapy to patients
- Collaborated with an interdisciplinary team of medical and mental health professionals
- Engaged patients and their families to form safety and treatment planning
- Received training and execute protocols based on Universal Health System's high standards of care

Psychology Extern **September 2018- June 2019**

Union Rescue Mission, Los Angeles, California
Supervisor: Dr. Bruce Rush, PsyD.

- Provided individual short and long-term therapy to culturally diverse homeless individuals with co-occurring persistent mental illness
- Provided crisis intervention and crisis management on a bi-weekly basis
- Collaborated with multidisciplinary teams to provide wellness and well-being such as integrated spiritual care and medications
- Maintained intake evaluations and progress notes to ensure proper documentation of session content and interventions
- Co-facilitated process group therapy
- Helped create material content for Behavioral Health Group including topics on communication stances, cognitive distortions, and grief management.

Marriage and Family Therapist Trainee **September 2017- June 2017**

Friends of the Family, North Hills, California
Supervisor: Norma Rosales, MFT

- Provided individual, group, and couples therapy for clients with a variety of presenting problems to improve interpersonal relationships
- Co-facilitated parenting class
- Referred clients to appropriate resources to address needs
- Maintained progress notes for all clients to ensure proper documentation of session content and interventions
- Completed paperwork to enable clients to satisfy the court and/ or agency requirements

Research Assistant **September 2015 – September 2019**

University Corporation, CSU Northridge, California
Supervisor: Luciana Lagana Ph.D.

- Assisted Professor Lagana with her NIH-funded Adult Behavioral Medicine Laboratory projects
- Conducted qualitative and quantitative data entry, data verification, and data analysis
- Recruited participants and conduct interviews with underrepresented populations
- Served as a Teacher's Assistant by supervising exams and assisting the professor in class
- Researched relevant literature and presented at conferences

Crisis Intervention Listener (Community Service) **September 2014 – July 2016**

CSUN Helpline, CSU Northridge, Northridge, California
Supervisor: Linda Cullerton, Ph.D.

- Acquired 523 hours of volunteer service as of 07/22/2016.
- Assisted callers who are dealing with crises situations, such as depression, abuse, drug and alcohol addiction, anxiety, loneliness, sexuality, relationships, suicide, and grief from the death
- Documented a summary of each conversation while upholding confidentiality standards
- Served as the Data Base Director from September 2015- May 2016.
    - Managed and updated database
    - Constructed a website for the customer service related to the Helpline.
    - Active member in the executive board
- Served as a Trainer from January 2015- May 2016.
    - Trained, mentored, and evaluated new listeners

Coordinator for Psychology Film Series **September 2014- February 2016**

Supervisor: Robert Resnick, Ph.D.

- Digital management

- Coordination of multi-language educational film series
- Experience with Vimeo and Rev Subtitling

VOLUNTEER EXPERIENCE

Psychiatric Volunteer **June 2015 – August 2015**
Counseling Center, Karlovac, Croatia
Supervisor: Marko Kraljevic, M.D.

- Shadowed lead psychiatrist
- Educated in SPECT imaging test

Front Office Receptionist Volunteer **August 2012 – November 2013**
Venice Culver Marina Medical Group, Los Angeles, CA
Supervisor: Karen Mejia

- Answered phones and handled communication, greeted and registered incoming patients
- Maintained and organized medical documentation
- Input information into a database
- Collected patient information and verified insurance
- Collected daily payments from patients
- Scheduled appointments with patients, providing schedule updates to medical practitioners

Emergency Room Volunteer **March 2011- June 2012**
Inova Loudoun Hospital, Ashburn, VA
Supervisor: Joan Reif

- Exposed to the setting in Emergency Room
- Completed a training course on Inova Health System's Standards of Behavior and Patient Safety Programs
- Worked with a team of RN's, respiratory therapists, patient advocates, and doctors
- Shadowed doctors and nurses
- Routinely cleaned and prepared stretchers for patients
- Transported patients in wheelchairs
- Provided juice, crackers, and blankets to patients

PRESENTATIONS

Regional & State Conference Presentations

Sholl, K., Markovic, Z., Carter, D.B., Sagastume, A. & Lagana, L, (2016, March). *A literature review on interventions to increase acceptance of LGBT individuals.* Poster presented at the annual meeting of the Western Psychological Association, Long Beach, CA.

Gavrilova, L., Sholl, K., Markovic, Z., Carter, D. & Luciana, L. (2016, March). *Ageism Reasons and Interventions to Reduce it.* Poster presented at the annual meeting of the Western Psychological Association, Long Beach, CA.

Markovic, Z., LaFuente, F., Lagana, L., Zacarias, A., (2017, April). *A literature review of trauma-related factors associated with being homeless*. Poster presented at the 97th Annual Convention of the Western Psychological Association, Sacramento, CA.

National Conference Presentations

Sweep, R., Lagana, L., Carter, D., Markovic, Z. (2016, May). *Predicting older women's sexual desire and activity from physical, psychological, and social health via logistic regression analyses.* Poster presented at Association for Psychological Science, Chicago, IL.

LEADERSHIP & PROFFESIONAL AFFILIATIONS

Diversity Committee Representative **September 2018- April 2021**

Student Government, Pepperdine University

- Worked to provide an inclusive environment for students from diverse backgrounds
- Took suggestions from the larger student body to plan and organize one event per semester surrounding diversity and inclusivity to both students and faculty
- Attends steering committee meetings once a month to communicate diversity needs of the student body

American Psychological Association, Student Affiliate **February 2020- Present**

- Division 48 Society for the Study of Peace, Conflict, and Violence: Peace Psychology Division
- Division 52 International Psychology
- Division 56 Trauma Psychology

AWARDS

President's Award	**May 2016**
Spotlight Listener	**June 2015**
Helpline Trainer Award	**May 2015**
CSUN Helpline Award	**December 2014**

ABSTRACT

Background: Multiple wars across the globe in the 20th century have affected countless children. One of these wars was the Croatian War of Independence or Homeland War, which lasted from 1991-1995. This systematic review examined the psychological and behavioral impact of war on children in Croatia in order to inform intervention with these children as adults, as well as to inform the literature on the effects of war on children more broadly. Methods: An integrative systematic review was conducted with qualitative and quantitative studies using narrative synthesis to review and integrate the findings from multiple studies. Studies eligible for inclusion were published in peer-reviewed academic journals. Date and language restrictions were applied to the searches. Studies had to have a publication date between 1991-2021 in order to be eligible for inclusion. English and Croatian language studies were eligible for inclusion. Results: In total, 21 studies were included in the qualitative synthesis and quantitative descriptive summaries. Almost all studies in this review included at least one variable related to either psychological or behavioral effects of war on children's mental health. Only one study included children between 0-6 years of age. This review shows inconsistent findings regarding the effects of gender. A majority of studies found that those children with higher eyewitness exposure to war violence exhibited greater internalizing and externalizing problems. Conclusions: The findings of this research highlight the need for further research considering the correlation between parental and child psychopathology, as well as family environment and family functioning during political violence.

Chapter 1: Background and Rationale

Statement of the Problem

War violates every right of a child: the right to life, the right to be with the family and community, the right to health, the right to development of the personality, and the right to be nurtured and protected (UNICEF, 1996). Multiple wars across the globe in the 20th century have affected countless children. One of these wars was the Croatian War of Independence or Homeland War, which lasted from 1991-1995 when Croatia defended the armed attack of the Yugoslavian army and Serbian paramilitary troops. Most of the Croats wanted the nation to become an independent democratic Croatia and leave the Socialist Federal Republic of Yugoslavia. However, the Yugoslav army and Serbian paramilitary troops tried to keep Croatia within Yugoslavia by occupying all of Croatia. Thus, 36% of the population was under direct attack. It is estimated that the number of civilian casualties was between 4,000-8,000, with more than 550,000 people being displaced (Stevanović et al., 2016).

During the 4-year period of war, hundreds of thousands of children were exposed to direct war activities, including air raids, shelling, and bombing. War experience among children in Croatia ranged from mild to severe stress or serious trauma, according to their level of exposure to war events (Brajša-Žganec, 2005). Children who lived near the Serbian border were heavily attacked and suffered for a prolonged period of time. The consequences of war on children were multiple losses, trauma, living with highly stressed parents, abrupt changes in family structure and patterns, prolonged displacement, and dissolving communities. In the Republic of Croatia, more than 172,168 children were displaced or became refugees in other European countries; 303 children were killed by explosions, shootings, bombings, or land mines; 1,280 were wounded; and 4,586 children lost one or both parents (Kuterovac-Jagodić, 2003). In

1998, there were still 36,053 internally displaced children, whereas only 11,279 of them returned to their hometowns and villages (Kuterovac-Jagodić, 2003).

According to the UNICEF report, *Uprooted: The Growing Crisis for Refugee and Migrant Children*, nearly 1 in every 200 children in the world is a child refugee (Lake, 2015). Approximately, 10 million child refugees are hosted across the world, primarily within the regions where they were born (Lake, 2015). Therefore, this systematic review focused on the psychological and behavioral impact of war on children in Croatia in order to inform intervention with these children as adults, as well as to inform the literature on the effects of war on children more broadly.

Overview of Current Research

In a systematic review on the effects of children exposed to war, Slone and Mann (2016) reviewed 35 international studies that included a total of 4,365 young children (ages 0-6). According to the reviewed studies, effects included Post Traumatic Stress Disorder (PTSD) and post-traumatic stress symptoms, behavioral and emotional symptoms, sleep disturbances, disturbed play, and psychosomatic symptoms. The evidence also suggested that many children develop non-specific behavioral and emotional reactions, such as developing new fears; low frustration tolerance, clinginess and over-dependency; increased aggressiveness; and changes in eating habits. Further, evidence from the reviewed studies suggests correlations between children's psychopathology and parental, family environment, and parental functioning that functioned as moderators of the exposure-outcome association for children. Another systematic review by Werner (2012) on studies exploring the effects of war on children concluded that younger children may show more severe symptoms of distress in response to separation from

their caregivers; however, older children may be more traumatized because of their exposure to and awareness of the negative consequences of armed conflict.

The general literature on the short and long-term effects of war on children provides a broader context for understanding the war in Croatia. These effects may depend on many mediating factors such as level and exposure (physical and subjective), characteristics of the child (age, developmental level, coping capacity, preexisting psychopathology, temperament), nature of the stressor, and the response of the wider community (Kuterovac-Jagodić, 2003). Research on the effects of the Croatian war on children covers many issues including psychological and behavioral effects.

Short-term Effects

Short-term effects of war have been documented in children of all ages including preschoolers (Laor et al., 1997), school-aged children (Dyregov et al., 1996; Hadi & Llabre, 1998), and adolescents (M. Ajdukovic & Ajdukovic, 1998; Klingman, 1992). These effects include fears and insecurities, interpersonal repetitions of the experience, emotional changes, precocious awareness, regressed and disorganized behavior, and confusion and disorientation (Gordon & Wraith, 1993; Macksound et al., 1993). According to Brajša-Žganec (2005), the short-term effects of war on children depend upon the age of the child and the type of traumatic event.

Children and adolescents in Croatia have reported the following short-term effects: intrusive thoughts and images as well as avoidance reactions. Displaced children showed significantly more of these reactions in addition to severe PTSD reactions (Kuterovac-Jagodić, 2003; Kuterovac et al., 1994). Studies have shown that displaced and refugee children in Croatia have many psychological problems and conduct disorders (Ekblad, 1993; Kocijan-Hercigonja et

al., 1996). A study conducted by Brajša-Žganec (2005) in a sample of 583 Croatian children ages 12-15, concluded boys suffer more from the long-term effects of war than girls. Kuterovac-Jagodić's (2003) study of 252 school-aged children from Eastern Croatia found that the child's long-term PTSD symptoms are predicted by the intensity of short-term symptomatology.

Long-term Effects

The long-term effects of war on children may persist for several years after the war has ended. The broader literature on the long-term effects of war on children indicates changes in personality and identity, deviations in children's development, school failure, chronic problems in peer relationships, pessimistic view of the future, and poor physical health (Brajša-Žganec, 2005; Catani et al., 2010; Farver & Frosch, 1996; Shaw, 2003), all of which contribute negatively to life outcomes.

Thirty months after the war ended, a follow-up study of Croatian children suggested that younger children were more vulnerable to long-term posttraumatic stress reactions. In most children, PTSD symptoms declined over time; however, 10% of the children showed severe symptoms of PTSD 30 months after the war. These children were between 6-8 years of age during the most intensive war activities in Croatia from 1991-1993. Additionally, the long-term effects of PTSD in both younger (6-8 years) and older (8-10 years) children included aggressive behaviors such as fighting, kicking, screaming, and teasing others. Based on the findings of the study, it is suggested that mental health professionals pay specific attention to the long-term effects of PTSD in children who were more exposed to traumatic events at a younger age, who use aggressive behavior as a coping strategy, who lack adequate social support, and who believe they cannot control their behavior (Kuterovac-Jagodić, 2003).

Age and Gender

Early childhood trauma has a significant impact on children. However, the broader literature concerning age it not consistent. A study by Leavitt and Fox (1993) suggested that younger children are more likely to experience anxiety, posttraumatic stress, and other symptoms than older children. According to a Croatian study by Kuterovac-Jagodić (2003) and earlier, broader studies (e.g., Dyregov & Raundalen, 1992; Garbarino & Kostelny, 1996), younger children between ages 5-9 appear to have greater vulnerability of developing long-term PTSD symptoms. Some research, such as that of Jensen and Shaw (1993), has found that older children and adolescents have developed better coping skills than younger children. Although the manifestation of posttraumatic symptoms differs according to age, Eth and Pynoos (1985) suggested that the general pattern or response is similar. The authors argue that children's efforts to cope with traumatic anxiety and helplessness are a function of maturity.

The broader literature contains substantial disagreement regarding the effects of the war and gender. Most studies have found no difference when it comes to the impact of war on males and females (Keresteš, 2006). However, some researchers, such as Leavitt and Fox (1993), have found that girls experience a higher frequency of stress reactions and show greater anxiety and fear than boys. Another study by Durakovic-Belko et al.,(2003) found that female children had significantly higher PTSD scores than males.

Additionally, the findings suggest no gender difference between children's aggressive behavior in relation to the war in Croatia (Keresteš, 2006). However, a study conducted 3.5 years after the war in Croatia in a sample of 583 children ages 12-15, concluded that boys experience more negative symptoms due to the long-term effects of war than girls, whereas the girls had higher rates of depressive symptoms than boys. In contrast, the immediate effects of war events

were more pronounced in girls than boys (Brajša-Žganec, 2005). Additionally, two studies in Croatia have found a relationship between suicide attempts and male adolescent offspring of PTSD male veterans in Croatia (Boričević Maršanić et al., 2014; Franić et al., 2011).

To introduce an alternative explanation for differing gender results, social and cultural variables must be considered. According to Gilligan (1982), girls are socially and culturally encouraged to express their anxieties, fears, and general emotional responses (resulting in higher PTSD scores); boys, in contrast, are not expected to express their emotions.

Family and Parental Factors

The number of families headed by a single mother increased significantly in Croatia as a consequence of the death of many fathers during the war. A study conducted by Dijanić (2016) focused on determining the sociodemographic and psychological characteristics through which anger can be predicted as personality trait in adulthood among children exposed to the Croatian war between 1991-1995. The study consisted of 155 participants whose fathers had passed away due to war activities or civil causes. The results supported the hypothesis that developmental age and psychological characteristic are predictors of the development of anger as a personality trait. Additionally, the study findings suggested that children who lost their father during the developmental period (1-30 years of age) are likely to suppress the anger and therefore show more symptoms of anxiety.

Franić et al. (2012) suggested that growing up in post-war Croatia with a father who survived the war with PTSD puts children at high risk for behavioral problems and psychopathology. Active war participation has been found to cause a wide range of psychological and psychosocial difficulties in veterans and in addition to exerting an indirect effect on their children. Studies have shown that veterans' parenting can be affected by hostile

reactions, poor anger management with rage outbursts, aggression and even family violence or physical abuse of children, and PTSD-related emotional numbing and emotional/behavioral withdrawal (Harkness, 1991; Heim et al., 2008). These behaviors can be damaging to the parent-child relationship. A study conducted in a sample of inpatient adolescent offspring of male Croatian veterans with PTSD found several modifiable risk factors associated with suicide attempts, including poor family functioning, adolescent internalizing problems, lack of maternal and parental care, and paternal overcontrol (Maršanić et al., 2015). As found in several other studies (Boričević Maršanić et al., 2014; Harkness, 1991) PTSD male veterans' children may show more struggles than children of veterans without PTSD in one or more areas of functioning, such as: emotional regulation, anxiety, depression, somatization, delinquency, aggression, poor socialization, academic-dysfunction, substance use and PTSD-like symptoms.

However, an extensive body of literature demonstrates that adult females develop PTSD more often than males (Stevanović et al., 2016). A study conducted by Stevanović et al. (2016) in a sample of 394 women aged between 18-65 suggests that independent factors are associated with higher level of PTSD symptoms among Croatian female civilian victims of war, including: older age, exposure to early-life trauma, exposure to war-related traumatic events, high neuroticism, and low extraversion. The research suggests that mothers exposed to war and terror may experience decreased psychological functioning and find it challenging to provide sensitive guidance, optimal parenting interactions, positive affect, and structure to their children (Shachar-Dadon et al., 2016).

Refugee and Displacement Stress

Stress is an important issue to examine among refugee children living in a new city or country. Additional stressors may be experienced related to living in the physical and social

surroundings of a post-war society. After 6 months of living in exile in a collective refugee center in Zagreb, Croatia, one study has identified following effects on child refugees from Hrvatska Kostajnica, Croatia: eating disorders, sleep disturbances, nightmares, sweating, defiance, aggression and hyperactivity, withdrawal, separation fear, despondency, general fearfulness, and weeping (M. Ajdukovic & Ajdukovic, 1998). Similar findings can also be found in Minkowski et al. (1993) study. According to Minkowski et al. (1993), among refugee children from Vukovar, Croatia, 8 months after they were displaced from their hometown the children were experiencing insomnia, crying, disturbances in feeding, disorganization in emotional and affective life, motor spells, spatiotemporal disorientation, uncontrolled motions of the arms and face, and disturbances in handwriting. He also noted that extreme anxiety among children was apparent: for example, the children's drawings were very disorganized. Minkowski et al. (1993) also observed that children younger than age 6 exhibited symptoms that were expressed physically and mainly linked to fears of separation from the family. Among children ages 6-12, it was noticed that the pathology symptoms were less immediately visible and required further medical analysis in order to determine a precise diagnosis. Lastly, adolescents in refugee camps in Croatia have shown troubled behavior that is directly related to trauma, including alcoholism, prostitution, theft, fighting, and suicide. Displaced and refugee children in Croatia displayed multiple struggles in adapting to the new educational environment that meant poorer conditions for learning, including high levels of spatial density in their current new homes (Svob, 1993). Another study showed that displaced and refugee children in Zagreb also showed more problems of adaption to their new surroundings and more psychological difficulties (M. Ajdukovic & Ajdukovic, 1998). In addition to significant psychological distress after the war, families faced many additional struggles such as loss of: parents or children, freedom of movement, having

enough food to eat, clean water, electricity, availability of school and homes (Cummings et al., 2009).

Intergroup Relations and Discrimination

Almost three decades have passed since the beginning of the Croatian war, and the city of Vukovar in Eastern Croatia still remains divided. In this city, ethnic tensions led to a horrific massacre and cruelty committed by the Serb military and paramilitaries in 1991. The city of Vukovar was the most devastated and destroyed during 1991-1995 war. Residents had to stay in their basements for 3 months at one point. There were thousands of deaths, mutilations, burning of houses, and instance of torture. After the war, the city of Vukovar was again a community where the Croats and Serb lived next to each other (D. Ajdukovic & Biruski, 2008). However, the ethnic division has spread throughout the community, leading to separate restaurants, coffee shops, bakeries, and other public places for each ethnic group. The schools and kindergartens in Vukovar became divided as well, and Croatian and Serbian children have started attending separate schools. According to D. Adjukovic and Biruski (2008), children who grew up in a divided post-war community were more likely to exhibit discriminatory behaviors toward their peers from the other ethnic group, show stronger ethnic identification, and display more out-group biases compared to children who did not grow up in a divided post-war community.

Rationale and Research Aims

Research on the impact of war on children from Croatia has been focused on understanding psychological and behavioral effects. Some studies with children were conducted during the war and other studies were conducted after the war had ended, focusing on both short-term and long-term symptoms. Symptoms of PTSD have been reported in children of all ages (preschoolers, school-aged, and adolescents). However, research suggests that war-related PTSD

symptoms in Croatian children declined over time (Kuterovac-Jagodić, 2003). Some research (Abu-Saba, 1999; Hadi & Llabre, 1998) has suggested that the intensity of exposure to war is a main factor in contributing to short-term PTSD symptoms in children. In contrast, Kuterovac-Jagodić's (2003) research demonstrated that long- term PTSD symptoms were not found to be due to the intensity of war exposure, but rather due to the child's personality characteristics and variables of the post-trauma social environment. Further, age of exposure may be an important consideration. According to Kuterovac-Jagodić and earlier studies, younger children between ages 5-9 demonstrated greater vulnerability to developing long-term PTSD symptoms.

A broad body of literature (Brajša-Žganec, 2005; Keresteš, 2006; Liddell et al., 1994; Macksoud & Aber, 1996; Raboteg-Šaric et al., 1994; Walton et al., 1997; Ziv et al., 1974) examined whether gender was a predictive factor for developing short-term or long-term PTSD symptoms among children in Croatia. However, most findings concerning gender and wartime stressors are inconclusive. The results are inconsistent with the findings of one study by Brajša-Žganec (2005), which showed a significant association between male gender and the long-term effects of war. In contrast, most of the studies revealed that exposure to the war equally affected both genders with respect to the effects, regardless of the outcomes that were considered (Brajša-Žganec, 2005; Keresteš, 2006; Liddell et al., 1994; Macksoud & Aber, 1996; Raboteg-Šaric et al., 1994; Walton et al., 1997; Ziv et al., 1974).

Several studies in Croatia have examined psychological and behavioral effects of war among children. However, no one has yet synthesized this literature. The war has affected many children and it would be valuable to better understand the patterns of the impact of the war. An exploratory review of literature suggests that the short-term effects of war on children include interpersonal repetitions of the experience, emotional changes, regressed and disorganized

behavior, fears and insecurities, precocious awareness, and confusion and disorientation. The long-term effects of war on children may be present even after the war has ended. Long-term effects can be characterized by changes in personality and identity, deviations in child development, school failure, problems in peer relations, poor physical health, and a pessimistic view of the future. By closely examining the research on the psychological and behavioral effects of the Croatian war, implications for understanding war and children can be derived. This understanding could also potentially inform mental health care practitioners when working with adults who experienced war when they were children.

The aim of this systematic review study was to synthesize the research on the long-term and short-term effects of war in children from Croatia with respect to psychological and behavioral effects. The specific research questions for this study were as follows:

- RQ1: What are the psychological and behavioral effects of war on children in Croatia?
    a. What short-term effects have been identified in the literature?
    b. What long-term effects have been identified in the literature
- RQ2: Do the effects vary by age, gender, or other demographic factors?
- RQ3: Do the effects vary by characteristics of the exposure to war (e.g., intensity, displacement, etc.)?

Chapter 2: Methodology

An integrative systematic review including qualitative and quantitative studies was conducted using narrative synthesis to review and synthesize the findings from multiple studies. The psychological literature on the Croatian war includes many different research methodologies such as cross-sectional, interview, correctional, and survey. This integrative approach reviewed both quantitative and qualitative data to address the mentioned research questions. An *integrative systematic review* (also referred to as mixed studies or mixed methods) is a specific review of a method that summarizes previous theoretical or empirical literature (Whittemore & Knalf, 2005). According to Pluye and Hong (2014), "mixing methods combines the power of stories and the power of numbers" (p. 30). Specifically, mixed methods are used to show both the strengths and limitations of quantitative and qualitative methods (Pluye & Hong, 2014). This review was used to develop a more complete understanding of specific complex issues or questions (Whittemore & Knalf, 2005). Narrative synthesis is the appropriate analysis method when there are different types of outcomes and measures that cannot be combined statistically in a meta-analysis. Additionally, narrative summary is usually used in systematic reviews with systematic searching and appraisal techniques (Dixon-Woods et al., 2006).

Eligibility Criteria

Inclusion Criteria

Publication Sources. Studies eligible for inclusion were published in peer-reviewed academic journals. Date and language restrictions were applied to the searches. Studies must have had a publication date between 1991-2020 in order to be eligible for inclusion. The Croatian War of Independence started in 1991; therefore, there are no documented studies about

effects of war on children from Croatia prior to 1991. English and Croatian language publications were eligible for inclusion.

Types of Studies. In order to summarize most comprehensively what is known about the long-term and short- term psychological and behavioral effects of war on children from Croatia, the systematic review included both quantitative and qualitative studies. The types of quantitative designs included but were not limited to cohort, descriptive, correlational, cross-sectional, experimental, and quasi-experimental. The types of qualitative studies included but were not limited to phenomenological, ethnographic, grounded theory, case study, historical, and narrative inquiry strategies.

Research Variables, Participants, and Settings. Included studies focused on the short- or long-term effects of the Croatian war (psychological and behavioral). Studies had to include participants who were between the ages of 0-18 during the Croatian War. Both male and female children were included. Studies collected data within Croatia as well as any other country where Croatian children lived as refugees. Local data collection settings were not limited and included schools, hospitals, homes, refugee camps, and others. Studies were included if they informed the primary research questions of this review.

Search, Screening, and Selection Processes

Information Sources

Relevant studies for this systematic review were identified through electronic searches of the following databases: PsychInfo, Scopus, EBSCO Host, MEDLINE, and Science Direct.

Search Terms

An inclusive list of search terms was developed to identify studies to be included in this review. The primary search terms were war, trauma, children, Croatia, long-term effects, short-

term effects, symptoms, and relationship. The synonyms used with the primary search term *war* were: “attack” or “warfare” or “dispute” or “terror*” or “war experiences” or “war time stressors” or “armed conflict” or “bombing” or “torture” or “combat” or “fighting” or “battle” or “strike” or “hostility.” The synonyms and related terms used with the primary search term “Croatia*” include “Republic of Croatia” or “Yugoslavia” or “Balkan” or “South Europe” or “Serbia*.”

The synonyms used with the primary search term *trauma* were: “war trauma” or “stress*” or “trauma*” or “Post Traumatic Stress Disorder” or “ptsd” or “posttraumatic” or “post-traumatic” or “anxiety” or “war effects” or “stress” or “torture” or “wound.”

The synonyms used to identify articles focused on the target age population of *children* were: “adolescen*” or “youth” or “young” or “child*” or “young children” or “preschool” or “teen*” or “boys” or “girls” or “baby” or “infant” or “teenager” or “toddler” or “age.”

The synonyms used to identify primary search term *symptoms* were: “psychopathology” or “psychological effects” or “psychological symptoms” or “behavioral effects” or “behavioral symptoms” or “social relationships” or “social skills” or “psychosocial outcomes” or “mental health” or “mental illness” or “mental disorder” or “behavioral health” or “anxiety” or “depression” or “psycholog*” or “psychological stress” or “behavioral problem” or “aggression” or “grief”, “trauma” or “stress” or “distress” or “disturbance” or “clinginess” or “dependence” or “sleep.”

The synonyms used to identify primary search term *long-term effects* were: “extended” or “prolonged” or “continuing” or “lasting” or “long-lasting” or “extensive” or “broad” or “permanent” or “lengthy” or “long-range” or “comprehensive” or “ongoing” or “adulthood.” The

synonyms used with the primary search term *short-term effects* were: “temporary” or “short-range” or “brief” or “short.”

The synonyms used to identify the primary search term of “relationships” included: “family,” “mother,” “father,” “parent,” “peer relationships,” or family relationships” or “parent with ptsd” or “parent* death” or “parent* loss” or “separation.” Additional search terms related to the research questions included: “gender,” “refugee,” “displace*,” “injury,” “death,” and “separation.”

Search Syntax and Search Process

Once the list of search terms and synonyms was identified, the terms were grouped by similarity and were assigned a numbered code. Each identified database was searched separately with the same search syntax. All keyword searches included “Croatia*,” “war,” and “children,” with additional terms included for specific searches to narrow results. For example, when seeking to identify short-term effects of war on children from Croatia, the author used the following synonyms simultaneously: (“attack” or “warfare” or “dispute” or “terror*” or “war experiences” or “war time stressor” or “armed conflict” or “bombing” or “torture” or “combat” or “fighting” or “battle” or “strike” or “hostility”) AND (“Republic of Croatia” or “Yugoslavia” or “Balkan” or “Southern Europe” or “Serbia*”) AND (“adolescen*” or “youth” or “young” or “child*” or “young children” or “preschool” or “teen*” or “boys” or “girls” or “baby” or “infant” or “teenager” or “toddler” or “age”) AND (“temporary” or “short-range”, or “brief” or “short”). The specific search syntax reflected various combinations of terms in order to identify all research studies that could inform the research questions (See Appendix A). Appendices B (Search Plan) and C (Search Documentation Record) show what was implemented during the search process.

Selection of Studies

After documenting each search, the following process was used for selection. An customized Microsoft Excel Screening and Selection spreadsheet was used to document the screening of sources identified in the search process (see Appendix D). Each source from the search results was screened. Three phases were used:

- Phase 1: Title/Keywords/Abstract (Screening)
- Phase 2: Full-Text Review (Eligibility)
- Phase 3: Final Decision.

First, duplicate references were identified and deleted. Second, for each article, the researcher screened the titles and abstracts of all studies identified through searches for relevance and general application of inclusion and exclusion criteria outlined previously. In cases where the initial selection of an article was unable to be confirmed by reviewing titles and abstracts, the author conducted a review of the full article using inclusion and exclusion criteria to determine if the article was eligible for the current study. The references with conflicting eligibility criteria at this stage were included and later the author and Chair determined the study's appropriateness for final inclusion in the review. The next step involved obtaining PDF copies of all initially included references. The final step determined whether selected papers met inclusion or exclusion criteria that had been outlined previously. If the paper was not eligible for inclusion, the reason the paper was excluded was noted on the screening form. The researcher kept a record of all articles, as well as included or excluded studies, that were obtained in the search process and then reviewed during the screening process using the Screening and Selection Record Excel spreadsheet. In the final column of this spreadsheet, the primary and secondary reviewers

indicated which studies were included or excluded in the final set of studies selected for analysis and the reasons why unselected studies were not included (see Appendix D).

In order to reduce bias and mistakes, the screening and selection spreadsheet were reviewed by the dissertation chair using randomly selected articles. Further, any articles that were questionable for inclusion were also reviewed by the chairperson, after which a collaborative determination was made. Finally, after the screening and selection process was complete, a PRISMA Flow Diagram was constructed (See Figure 1) to provide a transparent summary of the process of selecting the final set of studies for the systematic review. The PRISMA Flow Diagram was utilized to depict the flow of information through the different phases of the screening and selection process. It starts with the total number of sources or records identified through database searches. Then it shows the total number of sources after searching through and removing duplicates. Next, it shows the number of records that went through the screening process and the number that were excluded from the study in that process. Additionally, the diagram reveals the number of sources where the full text had to be assessed for eligibility and the number of articles that were excluded, as well as the reason for exclusions. Lastly, the final two boxes of the diagram shows the total number of studies included in qualitative and quantitative synthesis of studies that were included in the systematic review.

Data Collection and Extraction

The data collection and extraction process involved carefully reading each included study. A Data Collection and Extraction form was used to record the variables for each study relevant to addressing the research questions (see Appendix E). These variables, organized within sections, include: aim of the study; methodological design of the study; type of quantitative design; type of qualitative design; types of assessment measures used; names of

assessment measured used; population of interest; recruitment methods; sample size; participant gender, participant age, refugee status, and study location; data collection setting; year when study was conducted; descriptive statistics used; inferential statistics used; qualitative analysis conducted; key findings/results; key conclusions; suggestions for future research; research questions addressed by this study; salient study limitations; references to other relevant studies; further study information needed; correspondence received; and overall study rating. Two types of data were extracted from the studies reviewed: descriptive and analytical. Descriptive data extracted included: study characteristics such as research design and research questions addressed by this study, participant characteristics (age, gender, refugee status), location where data was collected, time period, exposure to war (witnessing war, displacements, a family member was killed or wounded in the war, had to stay in shelter, experienced aid raid alerts, shooting was close to where they stayed, was held captive or detained in a war camp), short-term or long-term effects, specific effects/outcomes studied (e.g., depression, aggression, PTSD, etc.), and how effects were measured. The analytical data extracted included: inferential statistics used, qualitative analyses conducted, key findings/results, key conclusions, suggestions for future research, salient study limitations, references to other relevant studies, identification of further study information needed, and correspondence received.

The Data Extraction Process

The Data Extraction form was developed to capture pre-defined data items for each of the studies included in this review. The form used was a modified Cochrane Effective Practice and Organization of Care (EPOC) form. The form is organized to collect data from each article within the following categories: general information about study (date form completed, initials/ID of person extracting data, source/publication type, source name, publication status,

document language), design characteristics and methodological features (aim of study, general method, design or specific research approach), study participant characteristic and recruitment (population of interest, sample size, recruitment methods, age, gender), setting characteristics (study location, data collection setting), assessment of research variables, analysis conducted, results, and conclusions and follow up. The extraction process involved following steps:

1. Data extraction was performed by the primary researcher (ZM) on an initial set of studies;
2. Specific questions regarding extraction and coding for individual studies were discussed with the chairperson (SH);
3. Additional items for extraction were considered for the Data Extraction and Coding form and any need for modification was determined collaboratively;
4. Ten percent of the initial set of studies was checked by the dissertation chair for accuracy and feedback provided to the researcher;
5. The researcher extracted data from all selected studies;
6. After data was extracted from all selected studies, the chairperson extracted data from a random set of studies independently as a validation check; and
7. Data extraction forms were scanned and stored electronically.

Quality Appraisal

The quality of included studies was assessed using the Individual Study Quality Assessment form developed for use in systematic review studies by the researcher's academic program (see Appendix F). This tool was developed to enable appraisal of studies with a range of research designs and informed by existing appraisal tools in the literature. In this systematic review, the Critical Appraisal occurred immediately following the data extraction process of

studies selected for inclusion. The Individual Study Quality Assessment form was used to rate each included study on 10 criteria, including: appropriateness of research design, strength of literature foundation and rationale for study, clarity and specificity of research aims/objectives/questions, quality of research design methodological approach, sample selection characteristics, measures/data collection tools, data collection, analysis of data, and discussion of study limitations. Each study's quality criteria were rated on the following scale: *Strong* (3 points), *Good/Adequate* (2 points), *Weak* (1 point), and *Missing* (0 points). The higher the score, the better the reporting quality. Each study was critiqued in the context of its overall quality with importance placed on its research methodology and design. However, studies with a "low quality" rating were not excluded from the analysis but rather quality scores will because they still informed the researcher's interpretation of the existing body of research on the topic.

Data Management, Synthesis, and Analysis Plan

After data was manually entered into the Data Collection and Extraction Form and the individual study quality appraisal was conducted, all the data was entered into a customized Excel spreadsheet. Excel was used to construct a comprehensive database of the data extracted from included studies and the individual quality appraisal of each study. Additionally, the Excel spreadsheet was used to facilitate data synthesis and analysis.

A descriptive synthesis of important study characteristics was conducted in order to examine the differences and similarities between the findings of different studies, as well as explore patterns in the data. The results of the included studies are reported in specific Evidence Tables to present the characteristics of studies that address the different research questions. The preliminary plan for presenting the results of the review is described subsequently. Specific column data was informed by the data extraction process and descriptive analyses of frequencies

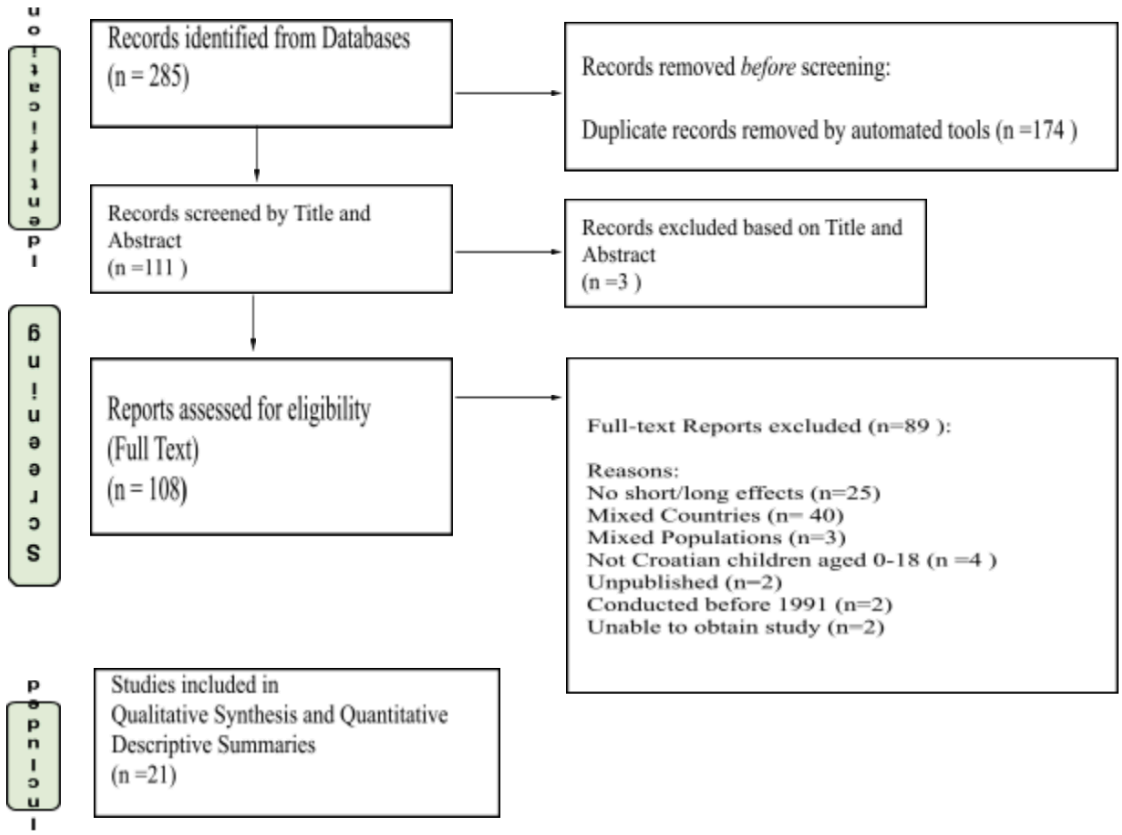
using Excel. The first Evidence Table presents an overview of all included studies with columns describing the focus of study, research design, samples, outcome variables, and key findings. The second Evidence Table was constructed to answer the first research question and presents information from each study on: psychological and behavioral effects of war, short-term effects, long-term effects, and specific outcomes of the study. The next Evidence Table presents studies that were used to answer second research question and presents information on age, gender, refugee status, location, and specific effects assessed in the study. The final Evidence Table presents studies that answer the third research question, with columns describing characteristics of the exposure to war, and outcomes of the study. Attention was given to patterns observed between war-related experiences and the effects of war. The findings of the literature were used to discuss the short- and long-term effects of war and implications for treatment.

Chapter 3: Results

A total of 285 records were identified using an electronic database. Duplicate records were removed (*n* = 174) before the screening. After reviewing titles and abstracts in the context of identifiable inclusion criteria, 3 records were excluded, resulting in 111 full-text articles assesses for eligibility. Of the full-text studies assessed, 89 were excluded, due to including mixed countries data (*n* = 40), not relating to short-term or long-term effects (*n* = 23), not including Croatian children (*n* = 14), mixed populations (including children and adults; *n* = 3), not published (*n* = 2), and a study conducted before 1991 (*n* = 2). In addition, two studies were unable to be obtained (*n* = 2). In total, 21 studies were included in the systematic review.

Figure 1

PRISMA Flow Diagram



General Characteristics of Included Studies

General characteristics of each of the included studies are reported in Evidence Table of Included Studies (see Appendix H). This includes authors, publication year, the focus of study, research methodology and design, sample size, outcome variables assessed, and results/main findings.

The studies were conducted between the following years: 1991-2000 (*n* = 8), 2001-2010 (*n* = 5), and 2011-2021 (*n* = 8). Regarding the research methodology of the studies, there were predominantly quantitative (*n* = 14) and qualitative studies (*n* = 7). Specific study designs included longitudinal study, correlational, cross-sectional study, and descriptive research. All studies were conducted in Croatia, included Croatian children, and were published in English. In terms of settings, two studies (10%) did not include the location of study. The remaining studies (*n* = 19) were conducted at the following locations: schools (*n* = 11), medical institutions (*n* = 6), and refugee centers (*n* = 2).

Overall, 20 (90%) of the studies included at least one variable related to the effects on children's mental health. However, one study examined what preschool children thought and knew about the war. Family-related variables were included in four studies. The following sections provide results related to psychological and behavioral effects of war on children from Croatia, study participant characteristics (age, gender), characteristics of exposure to war, and prevalent results/main findings.

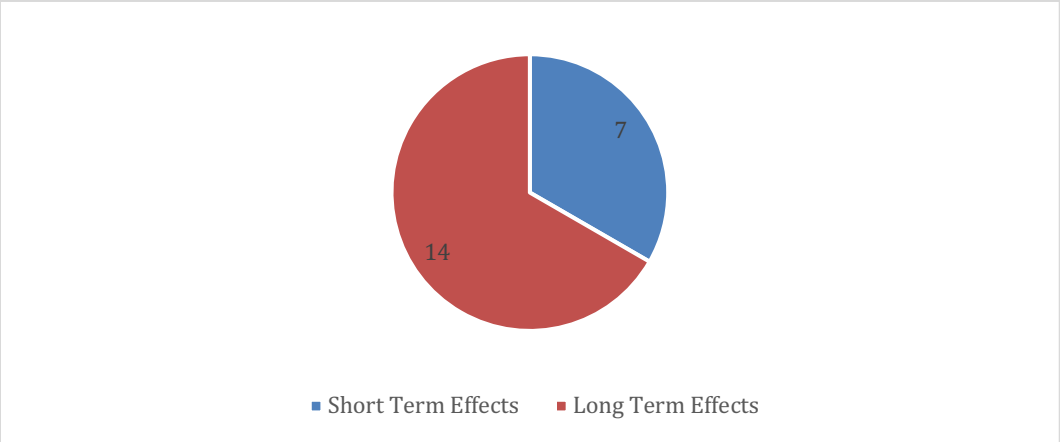
Research Question 1

Research question 1 asked, "What are the psychological and behavioral effects of war on children in Croatia? What short-term effects have been identified in the literature"? What long-term effects have been identified in the literature? This research question aimed to examine the

short-term and long-term effects of war on children from Croatia with the Evidence Table for this research question presented in Appendix I (See Figure 2). Multiple areas of psychological and behavioral effects were found across the various outcomes' studies.

Figure 2

Number of Articles Identified on Short- and Long-Term Effects of War



Psychological Symptoms

The majority of studies assessed for specific psychological symptoms such as PTSD, depression, anxiety, anger, and suicidal thoughts (90%). Overall, results of the studies reviewed indicate that war exposure was significantly correlated with these symptoms. PTSD or post-traumatic stress symptoms were examined in six studies (29%) and depression was assessed in 8 studies (38%). Further, five studies examined anxiety (24%) and four studies examined anger (19%). Finally, two studies examined suicidal ideation among Croatian children (10%). One study found that suicidal ideation in male adolescents was found to be associated with physical fighting, being bullied, frequent alcohol use, and drug use. Other psychological symptoms included negative mood and anhedonia.

Behavioral Symptoms

Fourteen of 21 studies included behavioral symptoms among Croatian children who experienced war (67%). These studies included sleep disturbances, nightmares, psychosomatic reactions, aggressive behavior, substance abuse, eating disorders, concentration difficulties, failure in learning, obsessive drawing of the war, separation fear, fearfulness, loss of confidence, self-injury behavior, and avoidance behaviors.

Short-Term Effects

Seven of 21 studies identified short-term effects in Croatian children who experienced the war (29%). The reviewed studies operationalized short-term as the immediate effects or symptoms that occurred while the war was still going on in Croatia. Specifically, all studies that investigated short-term effects of war on children from Croatia were conducted between 1992-1995. Two studies looked at the effects of war in 1992 and one study looked at the short-term effects in 1993. In the following year, 1994, three studies looked at the effects. During the final year of the war, one study looked into short-term effects of war in Croatian children. The following short-term effects were identified in the literature: PTSD, avoidance reactions, intrusive thoughts, and a temporary increase in adolescents' risk-taking behavior. One study specifically investigated the short-term effects of war among adolescents and found that exposure to traumatic experiences among adolescents can cause risk-taking behaviors, dropping out of school, promiscuous sexual activity, abuse of drugs or alcohol, juvenile delinquency, and eating disorders. Another study (5%) found that short-term PTSD symptoms were a significant predictor of long-term PTSD.

Long-Term Effects

Fifteen of 21 studies identified long-term effects (62%). In terms of length of time, the reviewed studies operationalized "long-term effects" within specific time periods. Eight studies looked at effects of war within 1-5 years after the war ended. Seven studies looked at effects within 10–20 years after the war ended. There were patterns and differences in the 1 to 5-year studies and the 10 to 20-year studies. The 1 to 5-year studies focused mainly on identifying the psychological and behavioral effects of war on children. However, the 10 to 20-year studies looked at the correlation between psychological or behavioral effects and if a child's father was a war veteran or killed in the war. The following long-term effects were identified in the literature: PTSD, aggressiveness, antisocial behavior, suicidal behaviors, nutritional deficiency, distress, being bothered by memories, depression, and anxiety. Two studies identified anger, PTSD, depression, anxiety, and suicidal ideation as long-term effects among children who had lost their fathers in the war. One study found (5%) that adolescent sons of male veterans with PTSD may be prone to suicidal ideation. Another study (5%) showed a high prevalence of PTSD symptoms in women 10 years after the war in Croatia who were exposed to war when they were 8-18 years of age.

Research Question 2

Research question 2 asked, "Do the effects vary by age, gender, or other demographic factors"? The following sections detail the results related to participant age, gender, and refugee status along with the Evidence Table for this research question presented in Appendix J (See Table 1).

Table 1

Participant Demographics

	# of studies (%)	Sample Size
Age		
Age group 1 (0-6)	*n* = 1 (15%)	98
Age group 2 (7-11)	*n* = 2 (10%)	1,389
Age group 3 (12-18)	*n* = 15 (70%)	3,603
Mix-age Studies (0-18)	*n* = 3 (15%)	836
Gender		
Girls & Boys	*n* = 21 (100%)	5,926
Refugee Status	*n* = 10 (50%)	2,936

Participant Age

It was common for the studies to report the age of their participants 21 (100%). Fifteen studies included participants between 12 to 18-year-olds (older children), three studies included mixed-age studies (0-18), two studies included participants aged 7-11 (younger children), and one study included participants aged 0-6 (preschool children). Furthermore, 10 studies of 21 tested age differences and correlations with psychological effects on children from Croatia. However, only one study of 10 that tested for age differences found no significance. The results of three studies reported more depressive and anxiety reactions in older children (*n* = 3). However, one study (5%) found that younger children reported more long-term symptoms than older children 30 months after the war (Kuterovac-Jagodić, 2003). With respect to PTSD, one study found that younger children reported more PTSD symptoms (Vizek-Vidović et al., 2000), and another study reported that older children reported more post-traumatic stress symptoms than younger ones (M. Ajdukovic & Ajdukovic, 1998).

Participant Gender

Regarding gender demographics of the participants in the studies, 20 studies included both male and female participants (95%). One study included female-only participants (5%) in trauma and control group (Stevanović et al., 2016). That study appeared to focus on female participants with respect to the experience of losing their father in their developmental period. The study found that females more frequently chose ways and methods to suppress experiencing the feeling of anger and therefore experienced more pronounced symptoms of anxiety, as opposed to women in the control group. Three studies found (14%) that boys who lost their fathers in the war, or if one (or both) parents were veterans of the war, reported more suicidal ideation than girls. Three studies (14%) found that girls tend to have more intrusive thoughts than boys. In addition, one study found that girls reported more PTSD symptoms, psychosomatic reactions, and anxiety. One study (5%) found that girls were more prone to express anger physically than boys. However, one study found that post-war aggression tends to be higher in boys than in girls. Further, regarding depressive symptoms, the findings are inconsistent. One study (5%) found that girls exposed to the war were more depressed than boys, and two other studies (10%) found that boys were more depressed than girls.

Refugee Status

Ten studies examined refugee status (57%) and found significant correlations between displacement and negative effects among children. These studies found that refugee status was related to higher levels of psychological, behavioral, and emotional reactions. In addition, refugee children experienced more exposure to other characteristics of war compared to children who were not refugees.

Research Question 3

Research question 3 asked, "Do the effects vary by characteristics of the exposure to war and family factors"? Research question 3 focused on identifying whether the psychological or behavioral effects of war vary by characteristics of exposure to war and family factors (see Appendix K). Data included a variety of characteristics of exposure factors and family factors, including: personal victimization, witnessing violence, loss of a home, staying in the shelter, being injured in the war, having a parent with PTSD, having a parent who was a prisoner in a war camp, having a parent who was killed or missing in the war, being separated from an important person, and victimization of a family member. Twenty studies (95%) examined characteristics of exposure to war and the impact of psychological and behavioral effects. All 20 studies found that those children with higher eyewitness exposure to war violence exhibited greater internalizing and externalizing problems.

Family Factors

Of the 20 studies that looked at exposure to war factors, seven studies included children whose parents were killed or missing in the war, four studies included children whose parents had PTSD, three studies included participants who were injured in the war, and two studies included participants whose parent was a prisoner in a war camp. The results indicate that the effects vary significantly among children of soldiers versus children with both parents at home. Specifically, the children of soldiers had more intensive disturbances than comparison groups such as failure in learning, anxiety, fear for father or other family member, and obsessive drawing of the war or talking about it. Seven studies of 21 looked specifically at the impact when the father participated in the war or died due to the war. Two studies (10%) found that adjustment difficulties in children correlated with parents' PTSD. Overall, the results show that

the children of soldiers exhibited more symptoms of higher intensity and symptoms that lasted longer. The most frequent symptoms identified were failure in learning, lack of concentration, forgetfulness, anxiety, depression, PTSD, avoidance, fear of loss (father or other family members), and obsessive drawing of the war or talking about it.

Furthermore, 14 articles examined the effects on children who were separated from their parents. The studies indicate that children whose parents were killed in the war or were away from home due to the war developed PTSD, depression, anxiety, and suicidal ideation at a higher rate. One study (Boričević Maršanić et al., 2014) found that children whose fathers participated in the war and also suffered from PTSD were more likely to experience non-suicidal self-injury (NSSI). In addition, that study found that adolescents who attempted suicide reported their parents to be less affectionate and caring as well as more overprotective and controlling than participants who did not attempt suicide.

Results of Individual Study Quality Appraisal

Of the 21 included studies, the most common classification rating given to the studies was *good* (*n* = 9) based on the Individual Study Quality Appraisal Form (see Appendix F). This was followed by *strong* (*n* = 8). Additional studies (*n* = 4) met the criteria for the *weak* classification. Low quality studies had one negative quality or a combination of the following weak qualities: did not report diagnostic data, did not report data collection tools, and did not discuss study limitations. In contrast, high quality studies had a combination of the following: (a) provided detailed methodology (b) provided specific design approach, (c) provided strong literature foundation and rationale for study, (d) provided clarity and specificity of research aims, (e) provided detailed quality of research design or methodological approach, (f) provided sample selection and characteristics, (g) provided measures/ data collection tools, (h) provided detailed

collection procedures, (i) provided clear analysis of data, and (j) provided detailed discussion of study limitations.

Chapter 4: Discussion

This systematic review aimed to summarize and synthesize the research literature from 1991-2021 on the psychological and behavioral effects of war on children from Croatia. The discussion section reviews the implications of findings relevant to psychological and behavioral effects of war in relation to children's age, gender, and other demographics, as well as the types of characteristics of exposure to war and directions for future research.

Significant Findings Concerning Research Questions

Research Question 1

Research question 1 asked, "What are the psychological and behavioral effects of war on children in Croatia"? What short-term effects have been identified in the literature? What long-term effects have been identified in the literature? The majority of studies did provide information on either psychological or behavioral, or both psychological and behavioral, effects of war on children from Croatia. The only study that did not involve either of the effects appeared to focus on children's comprehension of war. Furthermore, the following psychological effects were found in this review: PTSD or post-traumatic stress, eating disorders, depression anxiety, anger, suicidal ideation, negative mood, and anhedonia. Regarding the behavioral effects of war, studies on Croatian children found the following results: physical fighting, being bullied, being a bully, frequent alcohol use, excessive alcohol use and drug use, withdrawal, somatic complaints, rule-breaking behavior, aggressive behavior, social problems, thought and attention problems, nightmares, increased sweating, separation fear, weeping, obsessive drawings of the war, concentration difficulties, problems of adaptation to their new surroundings, increased prejudice, and social rigidity toward other groups. This is consistent with a broad body of literature on the psychological and behavioral effects of war on children from different cultural

settings such as Bosnia, Cambodia, Lebanon, and Palestine (Hubbard et al., 1995; Kinzie et al., 1986; Sack et al., 1995; Smith et al., 2002; Thabet et al., 2002)

Studies on children who were affected by war in Croatia showed short-term symptoms. During the war in Croatia, studies showed the following short-term reactions in children: intrusive images and thoughts, avoidance reactions, insecurity in terms of safety, feelings of being trapped, and continuous fear. Refugee and displaced children showed significantly more of these psychological reactions and conduct disorders. According to Kuterovac-Jagodić (2003), intensity of exposure to traumatic war activities is a predictor of short-term posttraumatic reactions. Additionally, children who reported short-term reactions tended to experience the following war activities: separation from an important person, forceful displacement, and witnessing more violence than children who reported fewer of those experiences. These findings are similar to the general research on the effects of war on children. The broader literature on the short-term effects of war on children identified effects including fears and insecurities, interpersonal repetitions of the experience, emotional changes, regressed and disorganized behavior, confusion, and disorientation (Gordon & Wraith, 1993; Macksound et al., 1993). One hypothesis that is emerging in terms of short-term effects of war among children is that the effects of war stressors during the war are related to the level of exposure.

The following long-term effects have been identified in children after the war in Croatia: PTSD, aggressiveness, antisocial behavior, failure in learning, anxiety, insomnia, sleep disturbances, distress, and being bothered by the memories. One study in particular looked into adolescent boys of Croatian veterans and found that adolescent sons of male PTSD veterans may be particularly prone to severe suicidal behaviors such as suicide attempts. Kuterovac-Jagodić (2003) also observed that children who reported higher levels of social support reported fewer

long-term PTSD symptoms. Another study on Croatian children found that exposure to war violence is related to children's aggressive behavior even 3 years after the war's end. This is consistent with the literature. The broader literature on the long-term effects of war on children includes changes in personality and identity, deviations in children's development, school failure, chronic problems in peer relationships, pessimistic view of the future, and poor physical health (Brajša-Žganec, 2005; Catani et al., 2010; Farver & Frosch, 1996; Shaw, 2003). One hypothesis that is emerging in terms of long-term effects of war among children is that the effects of war stressors after the war ends are related to post-war problems, such as reconstructing society, unemployment, poverty, limited social and parenting support, and limited opportunities for children and young adults.

Research Question 2

Research question 2 asked, "Do the effects vary by age, gender, or other demographic factors"? With respect to the age of participants in the studies, most of the studies included participants between 7-18 years of age. However, only one study looked at children specifically aged 0-6. The lack of studies on very young children is consistent with the literature (Jordans et al., 2016), perhaps because it is easier to conduct research on school-age children due to the fact that they can be recruited from school settings and data can be collected in schools. Most of the studies in this review were conducted in school settings. It might be more challenging to locate children who do not attend school yet. Future studies need to focus more on psychological effects on young children (ages 0-6). Furthermore, regarding whether the effects vary by age, the reviewed studies revealed that the younger children between ages 5-9 have a greater vulnerability to developing long-term PTSD symptoms. Broader literature concerning age suggests that younger children are more likely to experience anxiety, PTSD, and other symptoms

than older children (Dyregov & Raundalen, 1992; Leavitt & Fox, 1993). One hypothesis that is emerging in the literature on why younger children develop more symptoms suggests that older children and adolescents may have developed more effective coping skills by the time they are exposed to war, as compared to children who experience war at a younger age (Jensen & Shaw, 1993).

Almost all studies included both female and male children, except one study that was a female-only sample with a trauma and control group. The study indicated a high prevalence of posttraumatic symptoms in the cohort sample of women 10 years after the war in Croatia. It shows the importance of the impact of traumatic experience in childhood and/or early adolescence, as well as personality traits in the explanation of posttraumatic symptom severity in female war victims. Regarding whether the effects vary by gender, the results of most reviewed studies indicated that girls showed more PTSD, anxiety, depression, psychosomatic reactions, and stress reactions, and were more prone to express anger physically than boys. In contrast, one study revealed that aggression levels were higher in boys than girls, and one study found that boys experience more depressive symptoms than girls. Additionally, two studies found a correlation between male adolescents' suicide attempts and having a father who was a war veteran. This current review, as well as the broader literature on war and children, shows inconsistent findings regarding the effects of gender (Brajša-Žganec, 2005; Keresteš, 2006; Liddell et al., 1994; Macksoud & Aber, 1996; Raboteg-Šaric et al., 1994; Walton et al., 1997; Ziv et al., 1974).

One hypothesis that is emerging regarding the inconsistent gender findings in Croatia and broader literature could be due to sex stereotypes. For example, one study showed that girls were able to talk about their emotions and feelings, whereas boys, in contrast, talked more about the

enemy's aggression and were able to identify enemies. Moreover, boys could list the names of key politicians, whereas girls seemed less knowledgeable of this subject (Miljević-Ridjički & Lugomer-Armano, 1994). One way of understanding potential gender differences is related to gender socialization norms. According to Gilligan (1982) and Chaplin (2015), girls are more socially and culturally encouraged to express their anxieties, fears, and general emotional responses, resulting in higher symptoms, boys, in contrast, are not thought to express their emotions as freely. In contrast, boys are expected to show less "soft" emotions, such as anxiety and sadness, and are encouraged to express externalized emotions such as anger, contempt, and disgust; this bias could be due to sex stereotypes and different geographic regions of exposure during the war.

Another hypothesis that is emerging regarding the inconsistent gender findings in Croatia and broader literature could be understood in the context of methodological considerations. For example, studies that examined psychological symptoms among children in Croatia used different measures. Additional examples include acquiescence or yea-saying, a tendency to select more or less extreme item response categories, and rating scales based on agree/disagree response. Different methodological measurements may result in inconsistent results regarding psychological effects among gender groups. According to Fehr (1978), methodological differences are to some extent responsible for the discrepant results that have been reported. A universal measure for psychological symptoms could be a useful instrument for consistent psychological findings among genders. Moreover, ethnicity, language, and culture may affect item response (Teresi et al., 2017).

Research Question 3

Research question 3 asked, "Do the effects vary by characteristics of the exposure to war"? Exposure to war among children in Croatia ranged from mild to severe stress or serious trauma. Children who lived near the border with Serbia experienced heavy attacks for months, including severe stress exposure. These stressors included a family member or friend being injured and/or killed in the war, separation from a parent/s, witnessing the torture or death of a family member, and displacement. Children who lived in areas that were relatively safe from military attacks experienced air raid attacks and staying in bomb shelters; they were also exposed to information about the war in Croatia through the media and listening to the stories of other people who experienced war trauma (Brajša-Žganec, 2004). Reviewed studies on whether the effects varied by characteristics of the exposure to war revealed that children who were less likely to recover from PTSD and other symptoms had higher exposure to stressful and traumatic events, including refugee status, than children with less traumatic war experiences. This is consistent with the literature (Abu-Saba, 1999; Hadi & Llabre, 1998), which that that the intensity of exposure to war is a main factor in contributing to the short-term PTSD symptoms in children.

Additionally, in terms of parental factors, many studies showed that children who were displaced and had parents involved in the war had negative stressors associated with their psychosocial health, such as higher levels of PTSD, depression, and anxiety, as well as suicide attempts. The psychological and emotional functioning of a parent and family play a significant role in a child's outcome. This is consistent with the broader literature. According to Kaitz et al. (2009), mothers exposed to the war may find it difficult to provide guidance, structure, and positive affect to their children. Another study also found that exposure to war decreased

psychological functioning, which in turn has a negative effect on parenting, such as separation anxiety and less optimal parental interactions (Shachar-Dadon et al., 2017). Similarly, in a systematic review on the effects of war, terrorism, and armed conflict on young children, Slone and Mann (2016) found many studies that show a correlation between parents' and children's distress during the war. For example, maternal depression was related to children's behavioral problems, maternal PTSD was found to increase the risk of child's PTSD, and poor maternal mental health was related to greater vulnerability for children. Furthermore, the literature also suggests that better home environment and family functioning are related to good personal, social, and educational adjustments to children's healthy growth in a post-war era (Garbarino & Kostelny, 1996; Punamaki et al., 1997; Slone & Mann, 2016). One hypothesis that is emerging in terms of children's psychological problems and parental support during the war is that children's responses to war-related trauma may be influenced by parents' reactions.

Implications for Research

This systematic review attempted to synthesize psychological and behavioral effects of war on children from Croatia. Overall, the findings from these studies are consistent with the findings on the effects of war on children generally. When analyzing the research findings of the studies in this review, the following was well reported; the data for the short-term effects were collected during the war, as well as inclusion of both genders, and identification of psychological and behavioral effects. However, the following research needs and recommendations were observed from the reviewed studies. First, studies across the world should place an emphasis on adopting a universal exposure measurement for the impact of stressful life events on children's psychological adjustments. The reviewed studies on characteristics of exposure to war on children from Croatia included different measurements that investigated different war stressors

and traumas. It would be helpful if all studies across the globe use one validated measure that could apply to different contexts. One study suggests the Political Life Event (PLE) Scale, which has been used across various geopolitical contexts and ethnic groups (Slone & Mann, 2016).

Second, the reviewed studies showed inconsistent division among age groups. For example, one study referred to 0-6-year-old as "young children," and the other studies referred to 8-12-year-olds as young children as well. Future studies should use a universal age-specific category of childhood development stages to address distress in response to experiences of war-related traumatic events for children. It would be good to have common language to describe categories; it is also important that the cutoffs be similar across studies so that accurate comparisons can be made.

Lastly, the findings of these studies highlight the need for longitudinal studies that offer understanding and knowledge of the effects of exposure to conflict. Furthermore, many studies reviewed did not conduct follow-up assessments to identify long-term effects of war. Future research should investigate adjustments or maladjustments of psychological and behavioral effects of war on this population of children in a follow-up longitudinal study at least 15 years after the war's end.

Methodology Quality

There was a significant contrast between low- and high-quality studies. Low quality studies had one or a combination of the following issues: did not report diagnostic data, did not report data collection tools, and did not discuss study limitations. In contrast, high quality studies had a combination of the following: (a) provided detailed methodology, (b) provided specific design approach, (c) provided strong literature foundation and rationale for study, (d) provided clarity and specificity of research aims, (e) provided detailed quality of research design or

methodological approach, (f) provided sample selection and characteristics, (g) provided measures/ data collection tools, (h) provided detailed collection procedures, (i) provided clear analysis of data, and (j) provided detailed discussion of study limitations. A key recommendation for improving quality of research in this area calls for future studies to follow the standard characteristics of high-quality studies.

Implications for Practice

The reviewed studies that focused on parenting factors found that war-exposed parents showed less warmth and a more controlling parenting style toward their children, which was correlated with more significant psychological and behavioral symptoms among their children. This is consistent with literature investigating traumatized parents (Eltanamly et al., 2019; Sriskandarajah et al., 2015; Smith et al., 2002). Additionally, Brajša-Žganec (2005) showed that social support from mother, father, community, and so forth was related to fewer depressive symptoms among children who experienced the Croatian war.

Several implications emerged from this review. First, implications for practice include assessment of the functioning of the child's family who were also directly involved in and therefore affected by the war. Second, treatment should include a focus on the post-war recovery environment, such as post-war stressors that are abundant in a society after a war. According to Yule et al. (2013), during the war in Croatia, many international organizations were established to help children to address psychological distress, but few interventions were based on evidence and fewer were properly evaluated. During the 1990s, there were even fewer empirical studies on how to mitigate the effects of war on children. The 1996 report of the UN Secretary General on the Impact of Armed Conflict on Children stated that programs aimed at reliving

psychological suffering must consider the societal and cultural context of children and their families.

Currently there are continuing gaps in the literature regarding interventions for children affected by the war. The most widely reported interventions that have demonstrated efficacy for conflict-affected children are psychoeducation for the child and caregiver, insight building, relationship/rapport building, cognitive strategies, narratives, exposure, and strategies for maintenance/relapse prevention (Brown et al., 2017; Jordans et al., 2016). Specifically, there are few publications that focus on parents and families. Therefore, family-oriented interventions and interventions that focus on strengthening community should be explored further.

To better serve this vulnerable population of children, there is a need for culturally-adapted interventions that focus on community and family-oriented support. Therefore, it is important to include parents in the therapeutic work with children during and after wartime. This is consistent with literature that suggests the importance of a holistic mental health approach model that could include a community-based resilience-strengthening program (Jordans et al., 2016; Kadir et al., 2019; Slone & Mann, 2016). The clinical implications call for clinicians, communities, educational institutions, and parents to work together on addressing the mental health needs of children to receive support in schools through culturally-informed trauma therapy and community resilience programs. We cannot avoid exposure of children to war; however, we can help children adjust psychologically by increasing social support in their homes and communities.

Limitations and Contributions

This review is not without limitations. The reviewed research does not include many studies on children who are below 6 years of age. Additionally, publications that included both

children and adults in the sample were excluded, as well as studies that included both Croatian children and war-affected children from other countries (e.g., Bosnia or Serbia), yet they may still yield important findings for this review. Further, due to the large volume of databases available, some relevant databases may have been missed due to methodological factors, such as narrow search criteria (Croatian and English language, peer-reviewed, published), thereby limiting the number of sources collected on the psychological and behavioral effects of war on children from Croatia. In other words, source documents that were unpublished, "grey" literature, and studies written in other languages about the effects of war on children from Croatia were probably missed due to narrow search criteria.

The first potential contribution of this review is that, to the best knowledge of the researcher, it is the first systematic review examining the effects of the Croatian War of Independence on children from Croatia. The second potential contribution is that this systematic review will benefit researchers and clinicians by presenting a synthesis of all available evidence related to the psychological and behavioral effects of the Croatian War of Independence on children from Croatia. Specifically, the present findings are consistent with a broad body of literature reports. Therefore, this research provides additional data and support for understanding effects of war on children that may generalize across locations. Another potential benefit that emerges from summarizing the available literature presented in this study is to better inform practicing clinicians in their intervention strategies who are working with this particular population in Croatian society and in other post-war countries. This review can also potentially help inform treatment considerations for adults who were directly affected by the war while living in Croatia as children by understanding the importance of the impact of traumatic

experiences in childhood as well as personality traits and parental functioning in the explanation of posttraumatic symptom severity in war victims as adult clients.

Concluding Remarks

The primary goal of this systematic review was to address three research questions that focused on long-term and short-term psychological and behavioral effects of war on children from Croatia. The findings of this research highlight the need for further research on this vulnerable population that considers the impact of the correlation between parents' and children's psychopathology, as well as family environment and family functioning during political violence. Lastly, mental health problems can interfere with a child's development into adulthood. Therefore, a longitudinal study would provide further understanding of the long-term effects on children after the war has ended.

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APPENDIX A

Comprehensive Search Terms

LIST OF SEARCH TERMS

Search Term ID#	Primary Term	Synonyms/ Alternate Forms
01	War	attack, warfare, dispute, terror, war experience, war time stressors, armed conflict, bombing, torture, combat, fighting, battle, strike, , hostility
02	Trauma	war trauma, stress, trauma, PTSD, posttraumati, post-traumatic, Post Traumatic Stress Disorder, anxiety, war effects, stress, torture, wound
03	Children	Adolescents, youth, young, child, boys, girls, young children, preschool, teen, baby, infant, teenager, toddler, age
04	Croatia	Republic of Croatia, Yugoslavia, Balkan, South Europe, Serbia
05	Long term Effects	extended, prolonged, continuing, lasting, long-lasting, extensive, broad, permanent, lengthy, long-range, comprehensive, ongoing, adulthood
06	Short term effects	temporary, short-range, brief, short,
07	Symptoms	psychopathology, psychological effects, psychological symptoms, behavioral effects, behavioral symptoms, social relationships, social skills, psychosocial outcomes, mental health, mental ilness, mental disorder, behavioral health, anxiety, depression, psychology, psychological stress, behavioral problem, agression, grief, trauma, stress, distress, disturbance, irritability, clinginess, dependence, sleep, temper-tantrums,nightmare, emotional,
08	Relationship	family, mother, father, parent, peer relationships, family relationships, parent with ptsd, parent death, parent loss, separation
09	Additional Search Terms related to the s	gender, refugee, displace, injury, death, separation

APPENDIX B

Search Documentation

SEARCH DOCUMENTATION RECORD

Search Date	FULL SEARCH ID#	TYPE OF SEARCH	DATABASE/SO	SEARCH TERM ID#s	SEARCH SYNTAX OR OTHER GUIDELINES FOR THE SEARCH	FIELDS SEARCHED	ARCH SPECIFIER: Yea	# of Records
12/2/2021		Electronic Database	PsychInfo	01, 03, 04	"children" AND "Croatia" AND "war"	Title, Keywords, Abstract	1991-2020	7
12/2/2021		Electronic Database	Scopus	01, 03, 04,	"children" AND "Croatia" AND "war"	Title, Keywords, Abstract	1991-2020	5
12/2/2021		Electronic Database	Science Direct	01, 03, 04	"children" AND "Croatia" AND "war"	Titles, Keywords, Abstracts	1991-2020	3
11/24/2021		Electronic Database	EBSCOHost	01,03,04	"children" AND "Croatia" AND "war"	Titles, Keywords, Abstracts	1991-2020	1
11/14/2021		Electronic Database	MEDLINE	01,03,04	"children" AND "Croatia" AND "war"	Titles, Keywords, Abstracts	1991-2020	12
11/6/2021		Electronic Database	Scopus	01, 03, 04, 07	"war" AND "children" AND "Croatia" AND "psychological" AND "outcomes"	Titles, Keywords, Abstracts	1991-2020	1
11/6/2021		Electronic Database	Psychinfo	01, 03, 04, 07	"war" AND "children" AND "Croatia" AND "psychological" AND "outcomes"	Titles, Keywords, Abstracts	1991-2020	0
11/6/2021		Electronic Database	EBSCOHost	01, 03, 04, 07	"war" AND "children" AND "Croatia" AND "psychological" AND "outcomes"	Titles, Keywords, Abstracts	1991-2020	0
11/6/2021		Electronic Database	MEDLINE	01, 03, 04, 07	"war" AND "children" AND "Croatia" AND "psychological" AND "outcomes"	Titles, Keywords, Abstracts	1991-2020	0
11/6/2021		Electronic Database	Science Direct	01, 03, 04, 07	"war" AND "children" AND "Croatia" AND "psychological" AND "outcomes"	Titles, Keywords, Abstracts	1991-2020	5
12/8/2021		Electronic Database	PsychInfo	01,02,03,04,05	"children" AND "trauma" AND "Croatia" AND "war" AND "Long term Effects"	Title, Keywords, Abstract	1991-2020	0
12/8/2021		Electronic Database	Scopus	01,02,03,04,05	"children" AND "trauma" AND "Croatia" AND "war" AND "Long term Effects"	Title, Keywords, Abstract	1991-2020	0
12/8/2021		Electronic Database	Science Direct	01,02,03,04,05	"children" AND "trauma" AND "Croatia" AND "war" AND "Long term Effects"	Titles, Keywords, Abstracts	1991-2020	2
12/8/2021		Electronic Database	EBSCOHost	01,02,03,04,05	"children" AND "trauma" AND "Croatia" AND "war" AND "Long term Effects"	Titles, Keywords, Abstracts	1991-2020	0
12/8/2021		Electronic Database	MEDLINE	01,02,03,04,05	"children" AND "trauma" AND "Croatia" AND "war" AND "Long term Effects"	Titles, Keywords, Abstracts	1991-2020	0
12/8/2021		Electronic Database	PsychInfo	01,02,03,04,06	"children" AND "trauma" AND "Croatia" AND "war" AND "short term Effects"	Title, Keywords, Abstract	1991-2020	0
12/8/2021		Electronic Database	Scopus	01,02,03,04,06	"children" AND "trauma" AND "Croatia" AND "war" AND "Short term Effects"	Title, Keywords, Abstract	1991-2020	0
12/8/2021		Electronic Database	Science Direct	01,02,03,04,06	"children" AND "trauma" AND "Croatia" AND "war" AND "short term Effects"	Titles, Keywords, Abstracts	1991-2020	0
12/8/2021		Electronic Database	EBSCOHost	01,02,03,04,06	"children" AND "trauma" AND "Croatia" AND "war" AND "short term Effects"	Titles, Keywords, Abstracts	1991-2020	0
12/8/2021		Electronic Database	MEDLINE	01,02,03,04,06	"children" AND "trauma" AND "Croatia" AND "war" AND "short term Effects"	Titles, Keywords, Abstracts	1991-2020	0
12/3/2021		Electronic Database	Psych Info	04,01,02,03	"Croatia" or "republic of Croatia" AND "war" or "warfare" AND "trauma" AND "infant" or "baby"	Titles, Keywords, Abstracts	1991-2020	2
12/3/2021		Electronic Database	EBSCOHOST	04,01,02,03	"Croatia" or "republic of Croatia" AND "war" or "warfare" AND "trauma" AND "infant" or "baby"	Titles, Keywords, Abstracts	1991-2020	4
12/3/2021		Electronic Database	Scopus	04,01,02,03	"Croatia" or "republic of Croatia" AND "war" or "warfare" AND "trauma" AND "infant" or "baby"	Titles, Keywords, Abstracts	1991-2020	6
12/3/2021		Electronic Database	Science Direct	04,01,02,03	"Croatia" or "republic of Croatia" AND "war" or "warfare" AND "trauma" AND "infant" or "baby"	Titles, Keywords, Abstracts	1991-2020	1
12/3/21		Electronic Database	Medline	04,01,02,03	"Croatia" or "republic of Croatia" AND "war" or "warfare" AND "trauma" AND "infant" or "baby"	Titles, Keywords, Abstracts	1991-2020	7
12/3/2021		Electronic Database	PsychInfo	04,01,02,03	(croatia or republic of croatia) AND (war or warfare) AND war trauma AND (children or adolescents or youth or child or teenager)	Titles, Keywords, Abstracts	1991-2020	16
12/3/2021		Electronic Database	PubMed	04,01,02,03	(croatia or republic of croatia) AND (war or warfare) AND war trauma AND (children or adolescents or youth or child or teenager)	Titles, Keywords, Abstracts	1991-2020	9

APPENDIX C

Screening and Selection Table

AUTHOR(S)	YEAR	ABBREVIATED TITLE	DATABASES/ SOURCES	TITLE AND/OR KEYWORD SCREEN: DECISION - DATE	ABSTRACT SCREEN	FULL-TEXT SCREEN?	INCL (SO): *Published Study*	INCL (SO): Language English or Croatian	INCL(IRV): Short term effects or Long term effects	INCL(PAR): Age (0-18)	EXCL: *Study Conducted before 1991*	URL	FINAL DECISION
Vizek-Vidović, Vla	2000	Duplicate -Posttraumatic symptomatology in childr	PsychInfo	KM-12/2/2021	no	YES	Y	Y	Y	Y	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	duplicate
Green, Arthur H.,	1998	Stress and coping in children traumatized by war	PsychInfo	KM-12/2/2021	no	Yes	Y	Y	Y	Y	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
Obradović, Brank	1993	A threat to mental health of children and young pe	PsychInfo	KM-12/2/2021	no	Yes	Y	Y	?	Y	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
MARŠANIĆ, V. B.	2015	Non-suicidal self-injury among psychiatric outpatier	PsychInfo	KM-12/2/2021	No	Yes	Y	Y	N	No	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
KNEŽEVIĆ, M.; O	2002	Can creativity in conditions of war trauma be a dan	PsychInfo	KM-12/2/2021	No	Yes	Y	Y	N	No	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
KUTEROVAC, G., ;	1994	Children in war: A silent majority under stress	PsychInfo	KM-12/2/2021	no	Yes	Y	Y	Y	Yes	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	Include
Grgić, Mirela., et	2001	Parasuicid djece i adolescenata liječenih na Kliničk	PsychInfo	KM-12/2/2021	no	Requested	Y	Y	?	Yes	No	https://web-p-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
Brajša-Žganec A.	2005	The long-term effects of war experiences on childre	Scopus	KM-12/2/2021	no	YES	Y	Y	Longterm	Y	No	https://www-scopus-com.llb.pepperdine.edu/record/display.uri?eid=2-s2	Include
Jovanović H., Pre	2003	Impact of war on growth patterns in school childre	Scopus	KM-12/2/2021	No	Yes	Y	Y	Y	Y	No	https://www-scopus-com.llb.pepperdine.edu/record/display.uri?eid=2-s2	exclude
Sabljak L.	2003	Bringing Libraries and Books Closer to Children dur	Scopus	KM-12/2/2021	YES	No						https://www-scopus-com.llb.pepperdine.edu/record/display.uri?eid=2-s2	exclude
Povrzanović M.	1997	Children, war and nation Croatia 1991-4	Scopus	KM-12/2/2021	NO	yes	Y	Y	N	?	No		exclude
ZIVCIC I.	1993	Emotional Reactions of Children to War Stress in Cr	Scopus	KM- 12/2/2021	NO	yes	Y	Y	N	?	No	https://www-scopus-com.llb.pepperdine.edu/record/display.uri?eid=2-s2	Include
Andreja Brajša-Žganec	2005	duplicate-The long-term effects of war experiences	Science Direct	KM-12/2/2021	NO	YES	Y	Y	Longterm	Y	No	https://www-sciencedirect-com.llb.pepperdine.edu/science/article/pii/S0	duplicate
IVANKA ZIVCIC	1993	duplicate-Emotional Reactions of Children to War S	Science Direct	KM-12/2/2021	NO	Requested	Y	Y	N	?	NO	https://www-sciencedirect-com.llb.pepperdine.edu/science/article/pii/S0	duplicate
M. Medar-Lasic, L	1995	339-PA10 Lung tuberculosis in children of Croatia in	Science Direct	KM-12/2/2021	NO							https://www-sciencedirect-com.llb.pepperdine.edu/science/article/pii/09	exclude
Turkovic, Ksenija	2002	Overview of the Victimological Data Related to War	EBSCOHost	KM-11/26/2021	No	YES	Y	Y	N	Y	NO	https://web-s-ebscohost-com.llb.pepperdine.edu/ehost/viewarticle/rend	exclude
Franić T, Kardum	2012	Parental involvement in the war in Croatia 1991-19	Medline	KM-11/24/2021	No	YES	Y	Y	Y	Y	No	https://pubmed.ncbi.nlm.nih.gov/22661138/	exclude
Franić T, Dodig G,	2011	Early adolescence and suicidal ideations in Croatia:	Medline	KM-11/24/2021	NO	Yes	Y	Y	N	Y	No	https://doi.org/10.1027/0227-5910/a000107	Exclude
Ebina R, Yamazak	2008	Sense of coherence and coping in adolescents direc	Medline	KM-11/24/2021	No	Yes	Y	Y	N	Y	No	https://doi.org/10.1177/1025382308097692	Exclude
Plašć ID, Poljarev	2011	Age-developmental stage and severity of trauma re	Medline	KM-11/24/2021	No	Yes	Y	Y	Y	No	No	https://pubmed.ncbi.nlm.nih.gov/21648324/	exclude
Zivčić I.	1993	duplicate-Emotional reactions of children to war st	Medline	KM-11/24/2021	No	Requested	Y	Y	N	?	No	https://pubmed.ncbi.nlm.nih.gov/8340289/	duplicate
Brajsa-Zganec A.	2005	**duplicate**-The long-term effects of war experiences	Medline	KM-11/24/2021	NO	Yes	Y	Y	longterm	Y	No	https://pubmed.ncbi.nlm.nih.gov/15664424/	duplicate
Vizek-Vidović V, K	2000	**duplicate**-Posttraumatic symptomatology in childre	Medline	KM-11/24/2021	NO	Yes	Y	Y	Y	Y	No	https://doi.org/10.1111/1467-9450.00202	duplicate
Kuterovac G, Dyr	1994	**duplicate**- Children in war: A silent majority under	Medline	KM-11/24/2021	NO	Requested	Y	Y	?	Y	No	https://pubmed.ncbi.nlm.nih.gov/7888399/	duplicate
Kuterovac-Jagodi	2003	Posttraumatic stress symptoms in Croatian children	Medline	KM-11/24/2021	NO	Yes	Y	Y	Y	Y	No	https://pubmed.ncbi.nlm.nih.gov/12508328/	Include
Sikić N, Javornik I	1997	Psychopathological differences among three groups	Medline	KM-11/24/2021	NO	Yes	Y	Y	Y	Y	No	https://pubmed.ncbi.nlm.nih.gov/9248111/	Exclude
Dyregrov A, Kuter	1996	Factor analysis of the impact of event scale with ch	Medline	KM-11/24/2021	NO	Yes	Y	Y	Y	Y	No	https://pubmed.ncbi.nlm.nih.gov/8931390/	Exclude
Woodside D, Sant	1999	Psychological trauma and social healing in Croatia.	Medline	KM-11/24/2021	No	Yes	Y	Y	N	Y	No	https://pubmed.ncbi.nlm.nih.gov/10605386/	Exclude
Sikic, N., Javornik	1996	Sex differences in psychopathological conditions in	Scopus	KM-11/06/2021	NO	Requested	Y	Y	?	Y	No	Sex differences in psychopathological conditions in school children affecte	Exclude

APPENDIX D

Final Selection of Studies

author	date	count	title	URL
KUZMIĆ, D.	1992	1	Psychic reactions to war in children of soldiers and refugees.	emailed PDF
ZIVCIC I.	1993	1	Emotional Reactions of Children to War Stress in Croatia	https://www-scopus-com.lib.pepperdine.edu/record/display.uri?eid=2-s2.0-3042865363
KUTEROVAC, G.; DYREGROV, A.; STUVLAND, R.	1994	1	Children in war: A silent majority under stress	https://web-p-ebscohost-com.lib.pepperdine.edu/ehost/viewarticle/render?data=dGJyM
Kocijan-Hercigonja D., Rijavec M., Jones W.P., Remeta	1996	1	Psychologic problems of children wounded during the war in Croa	emailed PDF
Lončar, I., & Lončar, M.	2016	1	Anger in adulthood in participants who lost their father during the	Emailed PDF
Vizek-Vidović, Vlasta. U Zagreb, Kuterovac-Jagodić, G	2000	1	Posttraumatic symptomatology in children exposed to war	https://web-p-ebscohost-com.lib.pepperdine.edu/ehost/viewarticle/render?data=dGJyM
Kuterovac-Jagodić G.	2003	1	Posttraumatic stress symptoms in Croatian children exposed to wa	https://pubmed.ncbi.nlm.nih.gov/12508328/
Begovac, I., Rudan, V., Begovac, B., Vidović, V., Majić, G.	2004	1	Self-image, war psychotrauma and refugee status in adolescents	https://web-s-ebscohost-com.lib.pepperdine.edu/ehost/viewarticle/render?data=dGJyM Hf4lW2reR5tavifqup4U7jo7JRtdmrULHX40XiprVN36euTbeqtHy%2b6ON85%2bmkhN%2 d@redis
Brajša-Žganec A.	2005	1	The long-term effects of war experiences on children's depression	https://www-scopus-com.lib.pepperdine.edu/record/display.uri?eid=2-s2.0-1234432152
Franić T, Dodig G, Kardum G, Marčinko D, Ujević A, Bilušić M.	2011	1	Early adolescence and suicidal ideations in Croatia: sociodemographic, behavioral, and psychometric correlates.	https://econtent.hogrefe.com/doi/full/10.1027/0227-5910/a000107
Miljevic-Ridjicki R, Lugomer-Armano G	1994	1	Children's Comprehension of War	
Ajdukovic D, Corkolo-Biruski D	2008	1	Caught between the ethic sides: Children growing up in a divided post war community	
Kerestes G	2006	1	Children's agressive and prosocial behavior in relation to war exposure: Testing the role of perceived parenting and child's gender	
Borićević Maršanić V, Aukst Margetić B, Zecevic I., H	2013	1	The Prevalance and Psychosocial Correlates of Suicide Attempts Among Inpatient Adolescent Offspring of Croatain PTSD Male War Veterans	
Ajdukovic M., Ajdukovic D.,	1998	1	Impact of displacment on he psychological well-being of refugee children	
Grgić, M., Mandić, N., Koić, O., & Knežević, M. Z.	2002	1		https://web-p-ebscohost-com.lib.pepperdine.edu/ehost/detail/detail?vid=32&sid=30b0
Franić T, Kardum G, Marin Prižmić I, Pavletić N,	2012	1	Parental involvement in the war in Croatia 1991-1995 and	https://www-scopus-com.lib.pepperdine.edu/record/display.uri?eid=2-s2.0-2164445974
Borićević Maršanić V, Aukst Margetić B, Ožanić Buli	2015	1	non-suicidal self-injury among psychiatric outpatient adolescent d	https://pubmed-ncbi-nlm-nih-gov.lib.pepperdine.edu/25008331/
Plasć ID, Poljarević S, Loncar M, Henigsberg N.	2011	1	Age-developmental stage and severity of trauma related symptom	https://pubmed-ncbi-nlm-nih-gov.lib.pepperdine.edu/21648324/
DIJANIC, I.	2016	1	Growing up in a single-parent family and anger in adulthood.	
Stevanović, Aleksandra; Frančišković, Tanja; Vermett	2016	1	Relationship of early-life trauma, war-related trauma, personality traits, and PTSD symptom severity: a retrospective study on female civilian victims of war	
		21		

APPENDIX E

Data Extraction Form

Data Collection and Extraction Form

Person Extracting Data: **Date:**

Document ID#

Authors and Year *(last names of authors and year of publication, e.g.,*

Full Document Title

Research Variables

General Information

1. **Date form completed *(dd/mm/yyyy)***	
2. **Initials/ID of person extracting data**	
3. **Source/Publication Type** *(journal, book, conference, report, dissertation, abstract, etc.)*	
4. **Source Name** *(Title of Journal, Book, Organization, etc.)*	
5. **Publication Status** *(Published, Unpublished)*	
6. **Document Language**	
7. **Notes:**	

Design Characteristics and Methodological Features

	Descriptions as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
8. **Aim of study**		
9. **General Method** (Quant, Qual, Mixed)		
10. **Design or Specific Research Approach**		

Assessment of Research Variables

RESEARCH VARIABLES	**How Assessed** *(Measure, Observation, Interview Question, Archival, etc.)*	**Reliability/Validity/Utility**	**Location in text** *(pg & ¶/fig/table)*
11. **Variable 1**			
12. **Variable 2**			
13. **Variable 3**			
14. **Variable 4**			
15. **Variable 5**			
16. **Variable 6**			
17. **Notes:**			

Study Participant Characteristics and Recruitment

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
18. **Population of Interest**		
19. **Recruitment Methods**		
20. **Sample Size**		
21. **Age**		

	Description as stated in report/paper	Location in text *(pg & ¶/fig/table)*
22. **Gender**		
23. **The Notes :**		

Setting Characteristics

	Descriptions as stated in report/paper	Location in text *(pg & ¶/fig/table)*
24. **Study Location**		
25. **Data Collection Setting(s)**		
26. **Year when study was conducted**		
27. **Notes:**		

Analyses Conducted

	Description as stated in report/paper	Location in text (pg & ¶/fig/table)
28. **Descriptive Statistics used**		
29. **Notes :**		

Results

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
30. **Key Result #1**		
31. **Key Result #2**		
32. **Key Result #3**		
33. **Key Result #4**		
34. **Key Result #5**		
35. **Key Result #6**		
36. **Key Result #7**		
37. **Key Result #8**		
38. **Notes:**		

Conclusions and Follow-up

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
39. **Key conclusions of study authors**		
40. **Study Author's Recommendations for Future Research**		
41. **Does the study directly address your review question?** ***(any issues of partial or indirect applicability)***		

42. **Your Take-Aways: General**		
43. **Your Take-Aways: Implications for Practice**		
44. **Salient Study Limitations (to inform Quality Appraisal)**		
45. **Further study information needed?** *(from whom, what and when, contact info)*		
46. **Correspondence received** *(from whom, what and when)*		
47. **Notes:**		

1st Research Question

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
Psychological Effects: PTSD, DEPRESSION, ANXIETY, MOOD DISORDERS, CONDUCT DISORDER		
Behavioural Effects: Sleep disturbances, disturbed play, psychosomatic symptoms, substances abuse, aggressive behaviour		
Short Term Effects:		
Long Term Effects:		
RQ1: What are		

Psychological and Behavioural effects of war on children from Croatia?		
NOTES:		

2nd Research Question

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
Age		
Gender		
Injured in war		
Parent with PTSD		
Parent prisoner of war camp		
Parent killed or missing in the war		
Refugee Status		
Location		
RQ2= Do the effects vary by age gender or other demographics?		
NOTES:		

3rd Research Question

	Description as stated in report/paper	**Location in text** *(pg & ¶/fig/table)*
Characteristics of Exposure to war: Personal victimization		
Characteristics of Exposure to war: Witnessing violence		
Characteristics of Exposure to war: Injured in war		
Characteristics of Exposure to war: Loss of a home		
Characteristics of Exposure to war: Staying in shelter		
Characteristics of Family Factors: Parent with PTSD		
Characteristics of Family Factors: Parent prisoner in war camp		
Characteristics of Family Factors: parent killed or missing in the war		
Characteristics of Family Factors: Separation from Important person		
Characteristics of Family Factors: Being refugee		
Characteristics of Family Factors: Victimization of a family member		
RQ3= Do the effects vary by characteristics of exposure to war?		
Notes:		

APPENDIX F

Quality Assessment

INDIVIDUAL STUDY QUALITY ASSESSMENT (TEMPLATE)

Author(s) and Year: **Study ID#**

1. **Methodology:**
2. **Specific Design/Inquiry Approach:**

   RATING SCALE: Strong=3 Good/Adequate=2 Weak=1 Missing=0 N/A

3. **Strength of Literature Foundation and Rationale for Study: _____**
4. **Clarity and specificity of Research Aims/Objectives/Questions:**
5. **Quality of research design or methodological approach: _____**
6. **Sample Selection and Characteristics: _**
7. **Measures / Data Collection Tools: ____**
8. **Data Collection: _____**
9. **Analysis of Data: ____**
10. **Discussion of Study Limitations: ____**
11. **OVERALL RATING:** **EXEMPLARY** (all "3"s) **STRONG** (mostly "3"s) **GOOD/ADEQUATE** (mostly "2"s) **WEAK** (mostly "1"s)

APPENDIX G

Full Database of Extracted Variables

Document ID#	Authors	Year	Full Document Title	Research Variables	Publication Type	Source name	Publication Status	Document language	Aim of study	Research Method (General)	Specific Research Design or Approach	Measure/Assessment Variable 1	Measure/Assessment Variable 2	Measure/Assessment Variable 3	Measure/Assessment Variable 4	Measure/Assessment Variable 5	Notes/Optional	Population of intrest	Recruitment Methods	Sample Size	Sample Characteristic AGE
1	Gordana Kuterovac-Jagodic	2003	Posttraumatic stress symptom	RV1-Posttraum	Journal	Journal of Clinical	Published	English	To explore change	Quantitative	Longitudinal Study	Measure (QPTSR-C)	Measure (QSTWE)	Measure (ICSI-R)	Measure (PSSS-C)	Measure (EC5-C)		War-traumatized children	Four elementary schools	252	1. Assesment= grade
2	Vizek-Vidovic, Kuterovac Jagoc	2000	Posttraumatic symptomatolog	RV1=number a	Journal		Published	English		Quantitative	Canoncial discrimi	RSTI	PTSR-C	PS-Questionnaire	A- Questionnaire	D- Questionaire				1034	Younger children-
3	Begovac, I., Rudan, V., Begovi	2004	Self-image, war psychotrauma	RV1=war traum	Journal	European Child &	Published	English	The aim of this stu	Qualitative	Descriptive	OSIQ	OSIQ	CDI	Self-administered questionnaire			Croatian War refugees	Four refugee camps in Hat	322	13-19 years
4	Brajša-Žganec A.	2005	The long-term effects of war e	RV1=war experie	Journal	Child Abuse & Neg	Published	English	The aim of the stu	Quantitative	Correlational	RSTI	ISEL	EPQ-Junior	RADS			Children displaced due to	38 elementary schools in Z	583	12-15 years
5	Franić T, Dodig G, Kardum G,	2011	Early adolescence and suicidal	RV1=suicidal ide	Journal	Crisis: The Journal	Published	English	The first goal of thi	Quantitative	Cross-sectional quest	Three dichotomous (i.e.,	Self-report questionnaire	WHO survey Health Beh	JEPQ	Children's Depression Inventory for children aged 7–1		Early adolescents during t	Schools belonging to Split	840	11 years and more (i
6	Miljevic-Ridjicki R, Lugomer-A	1994	Children's Comprehension of War	RV1=how do the	Journal	Child abuse review	Published	English	The research conc	Qualitative	Descriptive	Interview Question: Wha	Interview Question: Who	Interview Question: Wh	Interview Question: Wha	Interview Question: How did you Feel during the Air-R		Refugee children who had	Zagreb kindergartens	98	pre-school (3-6)
7	Keresteš G	2006	Children's aggressive and pros	RV1 Questionna	Journal	International Journ	Published	English	The aim of the pre	Quantitative	Hierarchical multiple	Questionnaire on Childre	Peer nominations for agg	Teacher-rating scales of the child's behavior	Self-reports			School-age children from t	It should be noted that on	694 school children	10–14 years
8	Boričević Maršanić V, Aukst N	2013	The Prevalence and Psychosoc	RV1 Self-report a	Journal	Springer Science+B	Published	English	This study aimed t	Quantitative	Multivariate analyse	Self-report questionnaire	Suicide attempts	Youth Self Report	Clinician Administrated P	Clinical Global Impression	the Trauma Questionnaire	Consecutively admitted ac	To be included in the presa	365	12–18 years
9	Ajduković M., Ajduković D.,	1998	Impact of displacement on the	RV1 mothers' ass	Journal	Department of Soc	Published	English	The aim of this stu	Quantitative	Correlational	Mothers' assessment of	The post traumatic stress	The level of depression	Stress Events Scale	Post Traumatic Stress R	Parental acceptance reject	Mothers & children in a collective refugee center in Z		312	Baby-Adolescent, Ad
10	KUZMIĆ, D.	1992	Psychic reactions to war in children of soldiers and refugees.	RV1-Psychic Dist	Journal	Psychologische E	Published	English	To establish how w	Qualitative	Not clearly stated	(C Anamnestic data & clinic	Anamnestic data & clinical	Anamnestic data & clinical pictures/drawings			Did not provide detail on t	Children who had disturba	Children who came to the	93	latent period (70%),
11	ZIVCIC I.	1993	Emotional Reactions of Ch	RV1-Depressive s	Journal	Journal of the Ame	Published	English	To assess the emo	Quantitative	Descriptive statistics,	CDI	Emotion Scale	Mood Scale				Children, refugees from no	Not mentioned	480	8-15 years old
12	KUTEROVAC, G.; DYREGROV, A	1994	Children in war: A silent m	RV1- measure on	Journal	British Journal of H	Published	English	To assess the amo	Quantitative	Statistical Analysis b	War trauma questionnai	Impact of Event Scale (IES)					Children displaced and no	Elementary school in Zagr	134	10-15 years old
13	Kocijan-Hercigonja D., Rijavec	1996	Psychologic problems of ch	RV1-the psycholo children and ado sample of war-we preliminary explo social circumstan	Journal	Nordic Journal of P	Published	English	To obtain a clearer	Qualitative	Not clearly stated, h record information r circumstances, famil wounding, degree of	Purpose-designed questi	Purpose-designed questio	Purpose-designed questionnaires				Children wounded in the e	Medical institutions where	322	up to age 17 (did not
14	Ajduković, M.	1998	Displaced adolescents in Croatia: Sources of stress and posttraumatic stress reaction	RV1- Sources of s	Journal	Adolescence. Sp	Published	English	Identify the most f	Qualitative	Not clearly stated	Ten instruments were a	Ten instruments were administered to determine psychosocial reactions and sources of stress: (1) stress events, (2) pos					Adolescents displaced as a	result of the war in the Re	45	14-19 years old
15	LonČar, L., & LonČar, M.	2016	Anger in adulthood in part	RV1 sex (gender	Journal	Psychiatria Danubi	Published	English	s to research anger	Qualitative & Quanti	Descriptive (Measur were used in data pr shown by absolute a quantitative data we measures (arithmeti standard deviation,	Structured Interview for	Structured Interview for S	Structured Interview for	Structured Interview for	Structured Interview for Sa	RV6- the State-Trait Anger Expression Inventory – 2 (S	The target group consiste	The subjects were selecte examination from health c	155	17-37
16	MIRELA GRGIC, NIKOLA MANDIC,	2002	DIFFERENCES IN DEPRESSION	RV1=gender,	Journal	Social Psychiatry	Published	English	The aim of the	Quantitative	Descriptive	Non-standardized	The Depression	Hopelessness Scale for				Two groups: (1) 112	"Mato Lovrak"	198	12-15 years
17	Franić T, Kardum G, Marin Pršlin E, Pavlović N, Mardinko D.	2012	Parental involvement in the war in Croatia 1991-1995 and suicidality in Croatian male	**RV1-parental involvement in war,**	Journal	Croatian Medical Journal	Published	English	To investigate the association between parental	Qualitative	Cross-Sectional	**Self-report Questionnaire**	Junior Eysenck Personality Questionnaire	Children's Depression Inventory (CDI)	World Health Organization survey Health Behavior in	three dichotomous items & Rv6- one dichotomous item			Traumatized children from war in Croatia	Elementary School	**695**	**348 boys, 347 girls (year old and older/ 6th grade)**
18	Boričević Maršanić V, Aukst Margetić B, Ožanić Bulić S, Đuretić I, Kniewald H, Jukić T, Paradžik L	2015	Non-suicidal self-injury among psychiatric outpatient adolescent offspring of Croatian posttraumatic stress disorder male war veterans:	RV-NSSI V-internalizing problems RV- family functioning	Journal	International Journal of Social Psychiatry	Published	English	To determine the prevalence and psychosocial correlates of lifetime NSSI in a	Quantitative	Cross-Sectional	Parental Bonding Instrument (PBI)	Family Assessment Device (FAD)	Deliberate Self Harm Inventory (DSHI)	Youth Self-Report	Mississippi Scale for Combat-related PTSD	Trauma Questionnaire, Clinical Global Impression scale, Clinician Administrated PTSD Scale, brief	adolescents aged 12 to 18 years to a psychiatric outpatient unit	Psychiatric Hospital for Children and Adolescents	478 adolescents	(48.3% female) with mean age of 15.23 years (SD = 1.41)
19	Plasć ID, Poljarević S, Loncar M, Herigstad N.	2011	Age-developmental stage and severity of trauma related symptoms, anxiety and	RV1- Age, RV2- avoidance, RV3- vegetative	Journal	Collegium Antropologicum	Published	Englgh	The aim of this study was to explore the	Quantitative	Correlational	Age & CAPS	Age & Avoidance / Mortification (CAPS)	Age & Permanent Stimulation of the vegetative system	Age & difficulties and damaged functionality (CAPS)	Age & reliving trauma (CAPS)	Age & Degree of Anxiety (HAMA & HAMD)	age-developmental stages & severity of trauma symptoms,	Convenience sample of those who came in to the Clinic for Tumours in	103 (67 Female/ 36 Male)	Between 15-35 year old
20	Dijanic	2016	Growing up in a single-parent	RV1=sociodemo	Journal	Journal of Loss	Published	Englgh	To determine the	Quantitative	Cross-sectional	Structured interview	State-Trait Anger	Zung Self-Rating	Zung Self-Rating	Mini International		Subjects in the study	The subjects were	155	17-37 years old
21	Stevanović, Aleksandra;	2016	Relationship of early-life	RV1= Clinician	Journal	European Journal	Published	Englgh	The present study	Qualitive	Cross sectional							Female	Snowballing Method of	394	18-65

APPENDIX H

Evidence Table of Included Studies

Document ID#	Authors	Year	Focus of Study (Variables, Keywords, Population, etc.)	Research Methodology and Design	Sample Size	Outcome Variables Assessed	Results / Main Findings
1	Kuterovac-Jagodic	2003	To explore changes in the severity of short and long term symptoms of PTSD reactions in war traumatized children/Croatia	Quantitative/ Longitudinal Study	252	War experiances, Coping, Social Support, and Locus of Control	Children who were less likely to recover from PTSD symptoms over time were those with stronger short-term ptsd stress reactions, those with higher eyewitness exposure to war violence and more us of expressive coping, higher externality of control, and less social support, and those who were younger.
2	Vizek-Vidovic, Kuterovac Jagodic, Arambasic		Examined more traumatized children and less traumatized children, To examine affective and behavioral symptomatology in two groups of school-age children who were traumatized to different levels during the war in Croatai	Quantitative/ Canoncial discriminant analysis	1034	number and type of war experiences, PTSD symptoms, Anxiety, depression, psychosomatic symptoms, Psychosocial adaptation	More traumatized children reported significantly more symptoms of PTSD, psychomatic symptoms, anxiety, depression. On average, traumatized children experianced about four more stresful and traumatic events than the group of less traumatized childrren. The findings concerning age are not so consistent. the results indicate that gender differences are more prominent in older children. The older children(girls) reported significantly more posttraumatic stress reactions, depressive and anxiety reactions, while the younger children reported more ptsd symptoms than older children and better psychosocial adaptations.
3	**Begovac, I., Rudan,**	2004	To assess how war psychotrauma, refugee status and other factors relate to self-image.	Qualitative - self administered questionnaire	322	How war trauma (war stressors and posttraumatic stress reactions/PTS reactions/), refugee status and other factors (gender, age,parents' education, nationality, school performance, depression) relates to each OSIQ subscale.	The refugees had nearly four times higher odds (aOR = 3.66; 95 % CI = 1.63–8.2; p < 0.01) of having a higher Offer score for the sexual attitudes subscale. Lower war stress had 0.28 times lower odds (aOR = 0.28; 95 % CI = 0.11–0.71; p <0.01) of having a higher Offer score for the sexual attitudes subscale. More severe PTS-reactions had six times higher odds (aOR = 6.15; 95 % CI = 1.7–22.2; p <0.01) of reaching a higher Offer score for the emotional tone subscale. War psychotrauma and refugee status are related to poorer adjustment only in some of the OSIQ subscales.
			To investigate whether different levels of depressive symptoms in early adolescent boys and girls can be predicted on the basis of war experiences, perceived available social support (instrumental support, support to self-esteem, belonging and acceptance) and extraversion.	Quantitative - correlational		War experiences, perceived available social support, extraversion, and level of depressive reactions	Results of our study suggest that boys suffer more from the long-term effects of war than girls. However, we found that girls had more depressive symptoms than boys, which was consistent with the results of previous studies with adolescents (Leadbeater, Blatt, & Quinlan, 1995; Reynolds, 1994). The interpretation of regression analysis data show that three kinds of social support and war events are good predictors of the boys' depressive symptoms and instrumental support and support to self-esteem are good predictors of girls' depressive symptoms. According to the results of our study, exposure to war events increased depressive symptoms only in the boys' sample. It seems that the girls in our study are either more resilient to, or have more subjective perceptions of traumatic experiences than boys. Also, it seems that

APPENDIX I

Short-Term and Long-Term Effects of Exposure to War

ID	Authors	Year	Psychological Effects: PTSD, DEPRESSION, ANXIETY, MOOD DISORDERS, CONDUCT DISORDER	Behavioral Effects: Sleep disturbances, disturbed play, psychosomatic symptoms, substances abuse, aggressive behavior	Short Term Effects	Short Term Effects- when was the study conducted	Long Term Effects	Long Term- when was the study conducted	RQ1= What are Psychological and Behavioral effects of war on children from Croatia
1	Kuterovac Jagodic	2003	PTSD	NA	PTSD- Short term PTSD symptoms were a significant predictor of long-term PTSDChildren who experianced more war activity, separation from important personas and forcful displacment, and who witness more violence reported higher levels of PTSD	symptoms were accesed in 1994 while the war was still going on	PTSD declined over timesignificantly. However, younger children reported more long-term symptoms than older children 30 months after the war	2.5 years after the war was over in 1997	Children who were less likely to recover from PTSD symptoms over time were those with higher war exposure, use of expressive coping, higher extremal control, and less social support and those who were younger
2	Vizek-Vidovic, Kuterovac	2000	PTSD, depression, anxiety,	sleep, psychosomatic reactions	NA		NA	after war ended 5 years after	More traumatized children reported significantly more symptoms of PTSD, psychomatic symptoms, anxiety, depression. On average, traumatized children experianced about four more stressful and traumatic events than the group of less traumatized children.
3	Begovac, I., Rudan, V., Begovac, B., Vidović, V., Majić, G.	2004	PTSD	N/A	NA		NA		PTS-reactions were associated with the emotional tone subscale, also as poorer adjustment. Examinees with higher PTS-reactions were exposed to greater emotional fluctuations, with less control of affects
4	Brajša-Žganec A.	2005	Depression	n/a	NA		Boys suffer more from the long-term effects of war than girls.	study conducted 3.5 years after the war ended	
5	Franić T, Dodig G, Kardum G, Marčinko D, Ujević A, Bilušić M.	2011	Suicidal ideation	Physical fighting, being bullied, being a bully, frequent alcohol use, excessive alcohol use, and drug use.	NA		NA		SI in male adolescents were found to be associated with physical fighting, being bullied, frequent alcohol use, excessive alcohol use, and drug use. An association to physical fighting and being bullied were also found in female adolesants along with agressive behaviors which would classify them as "being a bully."
6	Miljevic-Ridjicki R, Lugomer-Armano G	1994			NA		NA		
7	Kerestes G	2006	Coduct Disorder, Anger	Aggressiveness	NA		Agressiveness and antisocial behavior are identified long-term effects	study conducted 3 years after the end of the war	There is a positive correlation when considering exposure to war and level of aggressivens (behavioral). There is a negative correlation when considering exposure to war and levels of prosocial behavior (psychological) (positively correlated with antisocial behavior).
8	Boričević Maršanić V, Aukst Margetić B, Zecevic I., Herceg M.	2013	Suicidal ideation	In our study we explored the behavioral part, consisting of 112 items with statements of behaviors or symptoms, including 16 items indicating social desirability. The items are combined into eight syndromes: withdrawn/depressed, somatic complaints, anxious/depressed (together constituting the internalizing syndrome), rule breaking behavior and aggressive behavior (together constituting the externalizing syndrome), social problems, thought problems and attention problems.	NA		Adolescent sons of male PTSD veterans may be particularly prone to severe suicidal behaviors such as suicide attempts. Living in urban area may contribute to increased suicide risk by increasing one's sense of isolation and loneliness in the absence of collectivistic family structures and strong community coalitions found in rural areas.	17 years after war- offspring of Croatian PTSD male war veterans	The prevalence of suicide attempts (in the previous 6 months) was 61.5 % (65.2 % for girls and 58.0 % for boys). Findings from the Chi square analyses and t tests show that gender, age, family socioeconomic status and ethnicity were not significantly associated with suicide attempts. However, the rates of suicide attempts varied significantly by school failure and residential area. More specifically, adolescents who reported school failure were more likely to have attempted suicide. Adolescents living in urban areas were also more likely to report suicide attempt. Suicide attempters reported significantly higher levels of internalizing problems, lower levels of Externalizing problems and had significantly higher Total score on the YSR than did non-attempters. Suicide attempters also reported higher levels of problems in their families, therefore, poorer family functioning than non-attempters. Adolescent who attempted suicide reported both their mothers and fathers to be less affectionate and caring as well as more overprotective and controlling than participants who did not attempt suicide. Several modifiable risk factors associated with suicide attempts in this vulnerable population of youth were identified, including adolescent internalizing problems, poor family functioning, lack of maternal and paternal care, and paternal overcontrol. Our findings suggest interventions targeting both adolescent psychopathology and family relationships are needed for adolescent children of PTSD male veterans who have attempted suicide.
				After six months of displacement there was a substantial increase in all of the symptoms. The most common reactions of children were the following: eating disorders (overly decreased or increased appetite in 31.8% of the children), sleep disturbances (16.4%), nightmares (22.7) and increased sweating (6.4%). Behavioral manifestations reported were: defiance (12.4%), aggression and hyperactivity (29.1%) and withdrawal (9.1%). In the emotional domain the following were most prominent: separation fear (25.5%), despondency (22.7%), general fearfulness (19.1%) and worries (16.4%). Mothers also	Our first experiences with children who got the chance to go back tovtheir villages after 3, 4 or even 6 years of displacement, were that they were now going through another very stressful and painful period of reintegration;	1992	Alongside this, children of the host families were also affected by the long-term displacement; A third of the children had clinical symptoms secondary to nutritional deficiency. Another study showed that one of every two children who lived in displacement longer than six months were malnourished; Children who manifested a higher number of difficulties after the first 6 months of displacement, also manifested them	1995	The overall results showed that post traumatic reactions were moderately present. Older children reported more post traumatic stress symptoms than the younger ones; It was found that the depression score for refugee children was significantly higher than the score for school children before the war. At the same time, there was no difference between the refugee children and a clinical sample of children who were treated before the war, in a mental health institution for psychosomatic problems, school failure, depression and anxiety. The correlation analyses revealed that the level of refugee children's depression was not related to the number of traumatic events, but rather to the family situation, child's age and the child's poor coping abilities during displacement, especially school difficulties; child's exposure to extremely intense stressors can have delayed

APPENDIX J

Demographic Characteristics of Study Participants and Differences on Effects of War

1	Document ID#	Authors	Year	Age	Age	Gender	Gender	Refugee Status	Location	RQ2= Do the effects vary by age/gender or other demographics
2										
3	1	Kuterevac-Jagodic	2003	1. grades	Y	Male and Fe	N	N	Osjek	Yes- younger children reported more long-term symptoms than older children 30 months after the war
4	2	Vizek-Vidovic, Kuterovac	2000	Younger c	Y	Male and F	Y	N		Yes! Girls reported more PTSD, psychosomatic reactions, and anxiety. Boys are more depressed than girls. The findings concerning age are NOT so consistent. The older children reported significantly more depressive and anxiety reactions, while the younger children reported more PTSD.
5	3	**Begovac, I., Rudan, V., Begovac, B., Vidović, V., Majić, G.**	2004	13-19 years	Y	Male and fe	N	Yes and No (control)	Hamburg and Zagreb	The subjects who had a higher CDI score but were an older age possessed 0.11 times less likely of having a lower Offer score in the sexual attitudes subscale as a consequence.
6	4	**Brajša-Žganec A.**	2005	12-15 years	N	Male and fe	Y	N	Zagreb	YES Depressive symptoms in boys are related to the number and severity of experienced war events, while this is not true for the girls. However, girls have more depressive symptoms than boys.
7	5	**Franić T, Dodig G, Kardum G, Marčinko D, Ujević A, Bilušić M.**	2011	11 years ar	N	Male and fe	Y	N	Split County	YES- SI in male adolescents were associated with a mother's lower educational level, a higher number of children in the family, a higher number of brothers, birth order, lower perceived parental control, and parental war participation. In addition, SI in male adolescents were found to be associated with frequent/excessive alcohol use and drug use as well. In female adolescents, SI were associated with the lower educational level of both parents, a higher number of brothers, a lower perception of relationship with parents, parental relationship, and cohesion with the family. In addition, school motivation and frequency of church attendance had negative associations. In contrast to male counterparts, females were more likely to act as a bully as well.
8	6	**Miljevic-Ridjicki R, Lugomer-Armano G**	1994	pre-school	N	Male and fe	Y	Y	Zagreb	NO- DIDNT LOOK INTO EFFECTS Sex stereotypes: girls are recognized as emotional (they can admit their fear because it is expected that girls are frightened), male stereotype involves having to be brave, not showing fear, etc. Boys talked more about the enemy's aggression and identified the enemies. Boys mentioned the actual names of the politicians, while the girls seem less knowledgeable in this. Refugee children, particularly boys, more frequently than Zagreb children ($p<0.05$, t-test) said 'My father is fighting' because their fathers were presumably more directly involved in the fighting and they were proud of that: 'My daddy, my uncle Ivica, Joze, all our parents are fighting and defending us'.
9	7	Kerestes G	2006	10–14 yea	N	Male & Fem	Y	Y	Osijek and Varazdin	YES All mechanisms used (Peer-ratings, self-ratings, and teacher-ratings) measured post-war aggression levels to be higher in boys than girls. In the same light, positively perceived parenting (as opposed to negatively perceived parenting) had statistically significant effects on measured levels of aggression and prosocial behavior (negative correlation with measured aggression, positive correlation with measured prosocial behavior).
					Y, no				Dubrava University	YES- CHILDRENThe prevalence of suicide attempts (in the previous 6 months) was 61.5 % (65.2 % for girls and 58.0 % for boys). Findings from the Chi square analyses and t tests show that gender, age, family socioeconomic status and ethnicity were not significantly associated with suicide attempts. However, the rates of suicide attempts varied significantly by school failure and residential area. More specifically, adolescents who reported school failure were more likely to have attempted suicide. Adolescents living in urban areas were

APPENDIX K

Characteristics of Exposure to War and Family Factors

Authors	Year	Characteristics of Exposure to war:Personal victimization	Characteristics of Exposure to war:Witnessing violence	Characteristics of Exposure to war: Loss of a home	Characteristics of Exposure to war: Staying in shelter	Characteristics of Exposure to war; Injured in war	Characteristics of Family Factors; Parent with PTSD	Characteristics of Family Factors; Parent prisoner in war camp	Characteristics of Family Factors; Parent killed or missing in the war	Characteristics of Family Factors: Separation from important person	Characteristics of Family Factors; Being refugee	Characteristics of Family Factors: Victimization of a family member	RQ3= Do the effects vary by characteristics of exposure to war and family factors
Kuterovac-Jagodic	2003	N	Y	N	N	N	N	N	N	Y	Y	N	Yes Children who were less likely to recoved from PTSD symptoms over time were were those with higher eyewitness exposure to war violence
Vizek-Vidovic, Kuterovac	2000	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Yes! The results reveal that more traumatized children reported significantly more symtoms of all kinds, and on average excericised four or more stresful and traumatic events than group of less traumtized children.
Begovac, I., Rudar	2004	N	N	N	N	N	N	N	N	N	Y	N	Yes War trauma and refugee status were related in the sense of worse adaptation only to some S-I subscales. However, the refugees had nearly four times higher odds (aOR = 3.68; 95 % CI = 1.63–8.2; p < 0.01) of having a higher Offer score for the sexual attitudes subscale in multivariate analysis (Table 2).
Brajša-Žganec A.	2005	N	N	N	N	N	N	N	N	N	N	N	According to the results of our study, exposure to war events increased depressive symptoms only in the boys' sample.
Franić T, Dodig G, Kar	2011	N	N	N	N	N	N	N	N	N	N	Y	Yes Parental war participation correlated with SI in male adolesants.
Miljevic-Ridjicki R, Lu	1994	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Yes Domains of exposure influenced level of internalization, more vivid fears, and the child's degree of knowledge regarding the war/politics
Kerestes G	2006	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Yes, greater number of wartime experiences yields higher measured levels of agression and lower measured levels of prosocial behavior.
Boričević Maršanić V.	2013	N	Y	N	N	N	Y	N	N	Y	N	Y	Yes Research describes effects of Parent being a combat war verteran correlation to suicidal ideation, not adolescents exposure to war themselves.
Ajdukovic M., Ajdukov	1998	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Yes, It was found that the depression score for refugee children was significantly higher than the score for school children before the war. At the same time, there was no difference between the refugee children and a clinical sample of children who were treated before the war, in a mental health institution for psychosomatic problems, school failure, depression and anxiety. The correlation analyses revealed that the level of refugee children's depression was not related to the number of traumatic events, but rather to the family situation, child's age and the child's poor coping abilities during displacement, especially school difficulties; child's exposure to extremely intense stressors can have delayed effects, and can cause difficulties in psychosocial functioning in adulthood.
KUZMIĆ, D.	1992	N	N	Y	Y	N	N	N	N	Y	Y	Y	Yes Children refugees had more than 5 symptoms, children of soldiers more than 4 and the others more than 3 symptoms
ZIVCIC I.	1993	N	Y	Y	Y	N	N	N	N	Y	Y	Y	Yes, Even if there was a common assumption that the children living outside the endangered zones were not exposed to the negative effects of the war stress, the difference 77chdren study was in line with the observations of our who have been affected by the war. even if indirectly (through the mass-media. Ustemng to the stories of other people who experienced severe trauma, by their parents reactions, etc.) Pg 712
KUTEROVAC, G.; DYRE	1994	Y	Y	Y	Y	N	N	N	N	Y	Y	N	Yes, The results showed that a majority of the children had been exposed to armed combat, with displaced children significantly more exposed to destruction of home and school as well as to acts of violence and loss of family members, than the non-displaced children.
Kocijan-Hercigonja D.	1996	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	Yes, those that were physically wounded were directly exposed to war. Accounts of by children being carried off in an ambulance with other children. Physical wounding is likely to be one of potentially traumalizing experiences, and owingto its frequency during wartime, it is possible to refer to a state of multiple trauma
Ajduković, M.	1998	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	YES, The number of traumatic events to which adolescents were exposed was significantly related to their level of depression (r = .32). Correlations between the number of traumatic events and stress reactions (r = .23) and self evaluation of coping with life in exile (r = .23) approached statistical significance.
Lončar, I., & Lončar,	2016	N	N	N	N	N	N	N	Y	N	N	N	NO This study did not look at exposure to war other than the loss of a parent
MIRELA GRGIC, NIKOLA	2002					N	N	N	N				YES refugee status did correlate to higher levels of depression and hopelessness
Franić T, Kardum G, Marin Pršinić I, Pavlović N, Marčinko D.	2012	N	N	Y	N	Y	Y	N	Y	Y	N	Y	YES The study indicates that children who had parents involved in the war had long-term negative stressors associated with their psychosocial health. It is indicative that male children have a higher level of distress than female children.
Boričević Maršanić V, Aukst Margetić B.													YES The study only looked at parents who suffer from PTSD caused by the war, however, the study does not identify the impacts of the exposure to war in detail. The study aimed to identify the

APPENDIX L

IRB Approval

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

June 24, 2021

Protocol #: **62421**

Project Title: Long Term Effects of War on Children from Croatia

Dear Zaneta:

Thank you for submitting a "GPS IRB Non-Human Subjects Notification Form" for *Long Term Effects of War on Children from Croatia* project to Pepperdine University's Institutional Review Board (IRB) for review. The IRB has reviewed your submitted form and all ancillary materials. Upon review, the IRB has determined that the above titled project meets the requirements for *non-human subject research* under the federal regulations 45 CFR 46.101 that govern the protection of human subjects.

Your research must be conducted according to the form that was submitted to the IRB. If changes to the approved project occur, you will be required to submit *either* a new "GPS IRB Non-Human Subjects Notification Form" or an IRB application via the eProtocol system (httpw://irb.pepperdine.edu) to the Institutional Review Board.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at https://community.pepperdine.edu/irb/policies/.

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval.

On behalf of the IRB, we wish you success in this scholarly pursuit.

Sincerely,

Institutional Review Board (IRB)
Pepperdine University

cc: Mrs. Katy Carr, Assistant Provost for Research
Dr. Judy Ho, Graduate School of Education and Psychology IRB Chair