



School Dropout Tendency in Ukraine: Protective and Risk Factors

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Abstract

This master thesis seeks to investigate protective and risk factors influencing school dropout, a globally significant issue. This study uses data from a prior longitudinal study conducted in Ukraine that surveyed 2,045 adolescents spanning over two academic years. The sample was generated from 200 schools in eight provinces through systematic random sampling. It is inclusive of students who are involved in conflict-affected regions to ensure diversity. The research makes use of a self-report questionnaire which was developed based on an extensive review and consultations with local experts, which incorporates scales that will elicit exposure to adversities, adaptation processes, and developmental outcomes. Ethical issues have been dealt by appropriate permissions as well as ensuring participant anonymity voluntary participation. Results showed that Mental Health Problems and Direct Conflict Exposure could predict School Dropout Tendency in Eastern Ukraine. Furthermore, the inclusion of some protective factors like School Connectedness and Safe Psychosocial Environment could improve the predictability of the initial model. Additional factors that could affect School Dropout Tendency were Neglect and Direct Conflict Exposure as contextual risk factors and Substance Use, Depression, Unsafe Sexual Behavior and Learning as individual risk factors. Finally, School and Family Connectedness could act as protective factors for School Dropout Tendency.

Keywords: School Dropout Tendency, Protective Factors, Risk Factors, Contextual Risk Factors, Individual Risk Factors, School Environment Factors, Ukraine, Adolescents.

Introduction- Background Information on School Dropout and Its Consequences

School dropout is one of the most devastating issues in the education sector since it has detrimental effects on individuals and society. School Dropout (SDO) a term is used to define the withdrawal from the educational procedure, most often in higher secondary education, without acquiring a minimal official credential (De Witte et al., 2013). According to U.S. Department of Education, Office of Research, and Improvement (2000), in October 2000 an estimated number of 3.8 million 16- to 24-year-olds in United States had abandoned high school and were not enrolled in a high school program. Based on statistics such as the aforementioned, concerns about school dropout have been raised for decades. Dropping out of school has harmful consequences. Individuals who dropped out of high school were four times more at risk of experiencing negative life events such as being fired, arrested, using substances, and having health problems by the age of 27 (Lansford et al., 2016). As a result, it is very important to investigate risk and protective factors which have significant effects in school dropout phenomenon.

The context of Eastern Ukraine

The war that erupted in Eastern Ukraine in 2014 and its consequences had an impact on many aspects of public life (Potikha, 2021). The war and its consequences threatened the wellbeing of 7.5 million children as community lacked access to clean water, lighting, heating, and health services (Júnior et. al, 2022). The impact of the conflict in Eastern Ukraine had affected all children within the country physically, socially and psychologically. People who lived in conflict zones in Eastern Ukraine, had a significantly lower likelihood of being happy because of the exposure to violence (Coupe & Obrizan, 2016). Finally, specific regions such as Donetsk and Luhansk are particularly vulnerable to high levels of hardships due to their geographical location. The war provoked to these regions massive

unemployment, and inadequate access of social services such as mental and health care (Lordos et al., 2020).

Identification of the Research Problem and Justification for the Study

High school dropout remains a multifaceted challenge, and the problem comes with far-reaching ramifications for the individuals as well as society at large. In addition, re-entry into the educational system after dropping out meets against formidable barriers that dissuade an individual from fully tapping his or her potential and prospects (de Bettencourt & Zigmond, 1990).

A host of studies have illuminated facts about the complicated make-up of reasons for school dropout across factors within family, school and community environment as well as student-specific factors (De Witte et al., 2013). Indeed, risk factors such as exposure to domestic violence, mental health disorders and bullying have all been pointed out as contributing to increasing risks of dropping out. With the complexity and wide-ranging implications of the dropout phenomenon, there is a need to study it in greater depth to determine its causes. This present study aims to provide such insight by focusing on these critical issues and suggesting entry points effective interventions that will give every student the chance for success and bright lives ahead. Centered around hypotheses that articulate specifically school-connectedness, safe school environments, psychosocial well-being, conflict resolution competence, and school resilience, this study tries to break down the complicated web of variables that influence high school dropout rates among Ukrainian adolescents.

Drawing from several scholarly sources, this study endeavors to provide new insight into the pivotal role schools play in shaping educational trajectories. The contribution of these insights will not only deepen our understanding of these dynamics but inform the development of targeted interventions aimed at enhancing school retention, fostering academic achievement

and empowering adolescents in overcoming challenges which will then contribute to a more equitable and prosperous future for both individuals as well as society overall.

Statement of the Research Objectives and Primary Hypotheses

What the researcher will try to unravel in this study is the complex relationship between a variety of risk and protective factors, and their possible effects on likelihood for high school dropout among Ukrainian adolescents. The hypotheses below reflect the multidimensionality of these factors and how they interact within the context of schools.

H1: Domestic violence, mental health problems, engagement in bullying as bully or as victim and indirect and direct conflict exposure can lead Ukrainian adolescents to think about dropping out of school .

H 2: Higher levels of connectedness in schools will reduce likelihood for someone to think about dropping out of school among Ukrainian adolescents who had experienced domestic violence acting as a buffer against negative outcomes.

H 3: Presence of safe psychosocial school environment and school connectedness will attenuate relationship between mental health problems and likelihood for high school dropout tendency whereby students in supportive school environments are more likely to persist in their education.

H 4: High levels of competency in conflict resolution will moderate the relation between bullying and likelihood of dropout. Effective conflict solving strategy may be able to counter some of the bad effects linked with bullying on rates of dropout.

H 5: Safe psychosocial environment and school connectedness will act as protective factors, lowering likelihoods of high school dropout tendency among adolescents that encounter adversity or face challenges that have been described as conflicts directly/indirectly.

The selected school variables—school connectedness, safe psychosocial school environment, conflict resolution competence in school, and school resilience in dealing with conflicts—are intricately linked to the hypotheses presented in this research proposal.

Hypothesis 1: In congruence with H1, risk factors such as domestic violence, mental health problems, bullying and indirect and direct conflict exposure can lead Ukrainian adolescents to think about dropping out of school. Firstly, different types of abuse such as psychological, physical or sexual, could result in high rates of school dropout (Sofuoğlu et al., 2016). Abuya et al. (2013), identified the factors that increase the likelihood of primary school students from a low- income area in Nairobi to drop out of school. Issues within families, including domestic violence directed towards spouses, negatively impacted children's school attendance, and subsequently led them to drop out.

Furthermore, in vocational and higher educational level, problems in mental health were significantly associated to dropout (Hjorth et al., 2016). Specific psychiatric disorders are known to act as risk factors for school dropout. Students with ADHD are more likely to abandon high school or repeat the same class compared to children without ADHD (Fried et al., 2016). Research including a sample of Brazilian children demonstrated that students who fulfilled the DSM-5 criteria for conduct disorder had higher chances to abandon elementary school compared to children without conduct disorder (Tramontina et al., 2001). Finally, research including 525 students in high school indicated that recent depression symptoms were related with dropping out of school (Dupéré et al., 2018).

Concerning environmental risk factors, bullying behaviors have been linked to school dropout. According to Townsend et al. (2008), girls who engaged in bullying as bullies, had greater risk of dropping out of school. The link between bullying and school dropout requires attention. Bullying acts as a mediator, with many harmful consequences for the child (poor

academic performance, school disengagement etc.) which could lead to school dropout (Cornell et al., 2013). Finally, a study among South Korean adolescents revealed a positive association between cyberbullying and intention to dropout school (Lee et al., 2020).

Another significant risk factor that is linked to school dropout is conflict exposure. Research during the second Intifada (2000-2006), among Palestinian households, found that low household income and loss of parental job, were associated with the decision of children dropping out of school (Di Maio & Nisticò, 2019). An important point is that violent conflict affects not only the population located in the center of the disaster but also the population in proximal areas (Turnip et al., 2010). According to Silver et al. (2002), six months after the events of September 11, posttraumatic stress symptoms were still detectable in individuals who were indirectly influenced by those violent attacks.

Hypothesis 2: In congruence with H2, which postulates that school connectedness works as a protective factor against the adverse effects of domestic violence on dropout rates, the American Psychological Association (APA, 2017) emphasizes the ethical importance in fostering feelings of belonging and attachment within educational settings. A strong link to the schools indeed has potential to build up resilience and counteract challenges posed by external factors such as domestic violence. In this hypothesis, a statement is made that strong sense of school connectedness can act as an additional protective factor that may help to mitigate the negative influence of domestic violence on dropout rates. For students who might be having problems at home, schools might provide a safe heaven. The structured and encouraging school atmosphere can provide a break from the difficulties they encounter at home.

Research focusing on school connectedness highlights its importance as one of the foundational components which contribute to students' overall satisfaction, engagement, and achievement (Janosz et al., 2008). It was suggested that students who feel emotionally attached

towards their school environment may develop a sense of ownership towards their educational journey which may be positively associated with resilience amidst challenges (Kapoor & Tomar, 2018, Marsh & Martin, 2011). This sense of belonging could contribute to student's overall wellbeing. The disturbances brought on by domestic abuse may be balanced by a sense of belonging to the school setting, which offers a secure and supportive atmosphere.

In addition, domestic violence is a harassing experience for adolescents, some of it traumatizing, with far-reaching consequences on their mental health as well as educational pursuits (Evans et al., 2008; Naughton et al., 2020; Turnip et al., 2010). The argument is that school connectedness may act as a buffer against these adverse effects, serving as a psychological haven where students can find emotional support, belongingness, and sense of normalcy (Borges et al., 2011; Choe, 2021).

Several studies offer empirical evidence underpinning the link between school connectedness and academic outcomes. Bianchi et al. (2021) documented how peer acceptance at school plays a protective role to prevent school dropout among immigrant and native students living in poverty. Likewise, Croninger and Lee (2001) demonstrated that teachers' support and guidance foster social capital, contributing positively towards students' engagement and staying in education.

Apart from that, children who face domestic violence are likely to become prone to developing some mental issues, so any positive aspects in their school life will be even more crucial to their welfare as well as academic success (Lawrence & Adebawale, 2022).

Last but not least, Hypothesis 2 states that school connectedness is a pivotal factor in curtailing the negative impact of domestic violence on the dropout tendency among Ukrainian adolescents. Research supports the premise that belonging and attachment to the school environment fosters resilience as well as adaptive coping strategies and enhance overall

wellbeing. Schools may serve as havens where students can find solace amidst adversities while receiving encouragement to succeed in their educational undertakings, negating detrimental effects of domestic violence (Sandler, 2001).

Hypothesis 3: Research on school climate underscores the multifaceted character of a safe psychosocial and connected school environment that encompasses physical security, emotional well-being as well as positive interactions between students and staff (Cohen, 2013; Thapa et al., 2013).

The literature evidence extensively describes the relationship between school climate and educational outcomes. In schools that are characterized by strong relations, clear rules, and positive interactions, lower dropout rates as well as enhanced academic performance are detected (Bradshaw et al., 2012; Orpinas & Raczyński, 2016; Thapa et al., 2013). Such places nurture a sense of bonding and attachment to school that diminishes disengagement and dropout opportunities (Marsh & Martin, 2011; Morrow & Villodas, 2018).

In addition, mental health problems may also negatively influence the academic success of students while increasing their dropout rate (Croninger & Lee, 2001; Eisenberg et al., 2009). School environments that are safe act as protective buffers against negative implications of mental health challenges by providing support mechanisms, resources, and normalcy (Ramsdal et al., 2018). School with robust psychosocial support system are better to recognize early signs of mental health issues in pupils. Early intervention could stop these problems from getting worse and having a detrimental effect on students' academic performance and perseverance.

Several studies point out how a safe school environment helps to curb instances of dropouts. Choe (2021) suggests that child neglect and social relationships are linked to dropout risk factors thus pointing out the buffer effect of positive school climate. Schools may foster an environment that supports both academic performance and emotional well-being against to

mental disorders, when they actively foster a feeling of community, peer support and good relationships. On the other hand, Croninger and Lee's study (2001) reveals that students benefit from teacher support and guidance which assist in building social capital hence increasing engagement with school.

Apart from studies investigating the association between mental health and school dropout rate highlight that feelings of belonging at school can motivate resilience and more adaptive ways to cope with problems (Dupéré et al., 2018; Lowe & Dotterer, 2013). The association between mental health issues and the propensity to drop out of high school will be lessened by school connection, since students who attend supportive schools are more likely to continue their education. Students are more likely to have a support system in place, which includes interactions with peers and teachers, when they experience a sense of belonging to their school. This feeling of belonging may serve as a buffer against mental health issues.

In summation, Hypothesis 3 highlights the importance of safe school environment and school connectedness in tackling the issue of high school dropout among Ukrainian adolescents. Apart from encouraging students' academic achievement, a caring and secure school ambiance also provides them with emotional support that proves instrumental in their resilience and feeling of belonging to the school. In this way, schools can contribute meaningfully towards reducing the risk for dropout as well as enhancing student success by focusing on positive relations, inclusivity, and giving emotional support.

Hypothesis 4: This hypothesis relates to the function of conflict resolution competence within the school environment as regards its ability towards mitigation of high school dropout rates amongst Ukrainian adolescents. The idea is that instilling effective skills at conflict resolution for students fosters better interpersonal relationships, lowered engagement with bullying behaviors and consequent lowered dropout rates.

Furthermore, conflicts are an inevitable part of human interaction; learning how to resolve conflicts constructively falls under indispensable personal growth and building relationship (Uline et al., 2003). Schools become pivotal in equipping students with conflict resolution skills by empowering them to navigate differences peacefully (Bickmore, 1997).

In addition, conflict in some instances results in disruptive behaviors hindering learning experiences as well as increase dropout risks (Rumberger & Lim, 2008; Sweeten et al., 2009). Conflict resolution competence gives students an alternative response from aggressive or avoidant activities hence helping them manage conflicts without engaging negative behaviors (Johnson & Johnson, 1996). Students' social-emotional skill development is frequently a component of conflict resolution competency. These abilities can give students—both bullies and targets of bullying—the skills they need to successfully communicate, control their emotions, and resolve social problems without turning to risky behaviors that could hasten their dropout rate.

Townsend et al. (2008) highlight the relationship between bullying behaviors and dropout rates. Through acquiring conflict resolution skills, students can navigate their way around bullying and harassment, reducing possibly its negative impact on academic engagement. In addition to work by Kafel (2020) emphasizing relevance of mental health in high school dropout rates thereby also underlining the need for conflict resolution skills as means through which stress and emotional distress could be managed.

In conclusion, Hypothesis 4 confirms the role played via creating conflict-resolution skills within schools, positive interpersonal relationships promoted; disruptive behaviors discouraged while student ability to deal with conflicts constructively increased as a pathway through which high school dropout rates among Ukrainian adolescents could be reduced. This hypothesis supplements an all-encompassing understanding of aspects influencing dropout

rates while suggesting ways through which developing a more supportive and inclusive school environment may be achieved.

Hypothesis 5: This hypothesis underlying the importance of school connectedness and safe psychosocial environment among Ukrainian adolescents who experience exposure conflict directly and indirectly. It suggests that schools with a safe psychosocial environment and connectedness could function protectively for trauma, enhancing wellbeing amongst students and academic engagement thus reducing the risk of dropping out.

As previously mentioned in hypotheses 2 and 3, school connectedness as well as a safe psychosocial environment could serve as protective factors against school dropout. School connectedness and safe psychosocial environment could help children to be resilient and handle the effect of war (Werner, 2012). These variables, to the best of our knowledge, have not been studied in conjunction with direct and indirect conflict exposure variables. Thus, we would like to examine these specific variables in the present study, as the socio-cultural context of Eastern Ukraine is unique and provides an opportunity to observe these specific interactions.

Secondary Hypothesis

In case that hypothesis 1 that domestic violence, mental health problems, bullying and indirect and direct conflict exposure cannot lead Ukrainian adolescents to think about dropping out of school, then we cannot proceed with the hypotheses that follow. This is because we cannot proceed with an exploration of the moderating effect of a protective factor, if we cannot first establish a main effect of the related risk factor. Thus, as a secondary hypothesis, we can utilize exploratory method to identify the contextual and individual risk and protective factors that affect School Dropout Tendency. In the same way we can utilize exploratory method to identify the contextual and individual risk and protective factors that

affect School Dropout Tendency separately for the districts close to the conflict area (Donetsk, Luhansk) and the districts far from the conflict areas.

Identification of research gaps

Earlier studies have looked into complex influencing factors of high school dropout rates rated by adolescents; however, there are a few gaps that seek to be filled with this study:

- i. Context-specific Perspective: Much of the literature on high school dropout rates seems focused on the Western context. By taking a more contextualized approach, explaining Ukrainian adolescents' circumstances, their cultural factors, societal elements, and educational nuances help bridge between generalized findings and specific challenges faced by the Ukrainian adolescent population.
- ii. Multidimensional Approach: Most studies generally explore risk or protective factors in isolation, thereby failing to capture intricately interplay among multiple variables. This study purports a multidimensional comprehensive framework that accounts for synergistic effects of various factors such as school connectedness, safe psychosocial chool environments, conflict resolution competence, and school resilience in dealing with conflict. The more holistic approach provides a more accurate portrayal of the complex dynamisms contributing to high school dropout rates.
- iii. Integration of School Variables: Though individual factors have been examined with respect to their contribution toward dropout rates little attention has been devoted to role of school-level variables. Indeed, important school-related variables - school connectedness, safe psychosocial school environments, conflict resolution competence, and school resilience – were integrated together for making nuanced sense about how schools can serve as critical settings in fostering resilience and preventing dropout.

- iv. Positive School Environments: Much research focuses on risk factors; however, this study places an emphasis on positive school environments and how they can reduce risks of dropout. The investigation of safe school environments, emotional support, conflict resolution competence, and resilience contribute toward an understanding as to how proactive measures within schools can negate negative influences and increase student engagement.
- v. Empowerment and Intervention: While most existing literature has simply concentrated on risk factor identification, without offering concrete strategies for intervention, this research goes beyond the simple identification of risk factors, and offers concrete interventions that schools can implement to create nurturing environments, foster resilience, and increase student retention. By laying out practical guidance, this fills a gap between theoretical insights and actual world applications.

Methodology

In order to find relations between school dropout and risk and protective factors, it was decided to utilize data from a research which had been conducted in Ukraine. This study focused on exploring adolescent development among the same Ukrainians over two time points. To obtain data for the initial time point, the researchers gathered information in the first semester of the 2018-2019 academic year. Likewise, they collected data for the subsequent time point during the first academic term of the following year, which was 2019-2020.

Ethical Issues

The research conducted in this study has undergone through review and received approval from the Commission on Psychology and Pedagogy of the Scientific-Methodical Council of the Ministry of Education and Science of Ukraine. Additionally, permission for conducting the research was granted by Sociological Association of Ukraine.

Participants

The study recruited participants from 200 schools selected randomly from eight oblasts (provinces) in different parts of Ukraine, including Dnipropetrovsk, Zaporizhzhia, Kharkiv, Kyiv, Lviv, Mykolaiv and the GCAs (government-controlled areas) of Donetsk and Luhansk oblasts. (Table 1).

Table 1

Participant Demographics

Province	Number	%
Dnipropetrovsk	171	8.4
Donetsk	487	23.8
Zaporizhzhia	182	8.9
Kyiv	159	7.8
Luhansk	524	25.6
Lviv	126	6.2
Mykolaiv	212	10.4
Kharkiv	184	9.0

To ensure the study's external validity, the sample from school was collected by using the method of systemic random selection. The researchers used a systematic method with tables to ensure equal probability of selecting classes in each school. Prior to administering the questionnaire to students in the second wave (2019-2020), the researchers made sure that each class had participated in the survey the previous year (2018-2019). Participants remained anonymous, but a unique identifier code was used to match participants' responses across both time points. The final sample was constituted from 2045 participants, who

matched successfully across both time points. Participants ages ranged from 14 to 19 ($M=15.7$, $SD=.77$), with 42.6% males (872) and 57.4% females (1173). The researchers recruited approximately half of the sample from Donetsk and Luhansk oblasts in eastern Ukraine, which have been scientifically affected by conflict, to ensure that adolescents exposed to conflict hardship were included in the study.

Materials

A group of students in grades 9 to 11 completed a self-report questionnaire on paper, written in Ukrainian language. The questionnaire took about 49 minutes to complete and included scales with up to 7 items each, which were designed to measure different aspects of specific dimensions.

Procedure

The head teachers of all the schools involved in the study were informed and required to provide consent for data collection. The pupils were also informed about the study and its purpose, as well as how their information would be used and stored. Furthermore, they were given the opportunity to decide whether or not to participate in the study and were informed of their right to withdraw at any point of the research. The pupils were not provided with any form of monetary compensation or any kind of reward for their participation in the research. Each participant completed a questionnaire, which was sealed in an envelope and return to the researcher on-site. In addition, the researchers sealed all participants' envelopes in a second envelope, with the assistance of 79 enumerators from UISR. This procedure was repeated at both time points.

Instruments

The research involved administering a self-report questionnaire to students in grades 9 to 11, which was conducted in Ukraine language and took approximately 49 minutes to

complete. Various constructs of interest were measured using scales consisting of up to 7 items, with each item exploring a specific aspect of a particular dimension. The questionnaire used for the survey in Ukraine included several sub-questionnaires that measure numerous variables. From all these questionnaires for the primary hypothesis of the specific study the following questionnaires were used:

The “exposure to domestic violence” variable includes subscales from the International Child Abuse Screening Tool were used. This questionnaire has a moderate to high level of internal consistency (alpha between .685 and .855) (Zolotor et al., 2009). The variable of domestic violence includes 3 items (e.g. Has anyone in your home used drugs and / or alcohol and then behaved in a way that frightened/ashamed you?). Participants reported how often they experienced domestic violence in the previous 12 months: many times=3, sometimes=2, never=1, not in the past year but this has happened=9.

The “mental health problems” variable includes subscales from the Youth Inventory-4 were used (anxiety, substance use, depression, PTSD, self-harm, suicidality, autism, conduct disorder, and ADHD sub-scales). The Youth Inventory- 4 showed accepted test-retest reliability (r values = 0.54–0.92) and internal consistency (α values = .66-.87) (Gadow et al., 2002). For this variable item like “Really upsetting things have happened to me and they still bother me” (e.g. from PTSD item) were utilized. Participants indicated how frequently they experience certain symptoms: never or very rarely = 1, sometimes = 2, often = 3, very often = 4.

The “bullying and victimization” variables include subscales from Student Survey of Bullying Behavior- Revised 2 was utilized. For both the victimization and bullying scales, Cronbach's alpha was .87 and .88, respectively (Fanti et al., 2009). Bullying scale includes 8 items in total. There are 2 items for each type of bullying: physical (e.g. hitting or kicking

you), verbal (e.g. saying mean things to them), relational (e.g. threatening them) and cyber bullying (e.g. posting mean things about them in social media). On an ordinal scale, participants stated how often they had bullied someone: never=1, once or twice a year=2, monthly=3, weekly=4, or daily=5 (e.g. say mean things to them). Victimization scale also includes 8 items in total and 2 items for each type of bullying: physical, verbal, relational and cyber bullying. Using the aforementioned scale for bullying items, participants indicated the frequency with which they experienced each type of victimization.

The “school connectedness” variable includes subscales from The Resnick School Connectedness Scale. The forementioned questionnaire has acceptable reliability ($\alpha = .82$ to $.88$) and concurrent validity ($r = .44$ to $.55$) (Furlong et al., 2011). This scale includes 2 items for each of the following categories: peer support (e.g. I can count on my friends when things go wrong), teacher support (e.g. the teacher at my school provide me the support and encouragement that I need) and emotional connection to school (e.g. I feel close to people at this school). On a scale of disagreement to agreement, participants indicated whether they agree or disagree with some statements: 1= Not all true, 2= Somewhat true, 3= Totally true.

Additionally, a number of scales had been created especially for Ukraine in association with UNICEF. These scales have already been validated in the context of the Ukraine Adolescent Study (UAS) (Lordos et al., 2024). These included measures for “School Dropout Tendency variable”. This variable consists of 3 items concerning the individuals’ intention of dropping out of school (e.g. Sometimes I feel unsure about continuing my studies at school/ vocational school. On a scale of disagreement to agreement, participants indicated whether they agree or disagree with some statements: 1= Strongly Disagree, 2= Somewhat disagree, 3= Somewhat agree, 4=Strongly agree. Furthermore, there is “safe psychological environment” variable which concerning child friendly school. “Safe psychological environment” variable includes 4 items (e.g. Our school has an active anti- violence

campaign and has clear mechanisms how to react to cases bullying and violence). On a Likert scale ranging from 1 to 3, participants indicated whether they agree or disagree with some statements concerning psychosocial school environment: 1= Not all true, 2= Somewhat true, 3= Totally true. Lastly, there are two more variables which are the “direct conflict exposure” variable and the “indirect conflict exposure” variable. The first variable comprises of 10 items which measures if the individuals have experienced conflict exposure in Eastern Ukraine over the past 2 years (e.g. Saw armed soldiers). Participants were given the chance to answer with Yes= 1 or No=0. The second variable consist of 4 items that measures how often people heard about the conflict in the East (e.g. Hearing the news about the conflict in the East on the television). Participants answered from a scale ranging from 1 to 4 (1=Never, 2=Rarely, 3= Sometimes, 4=Often).

For the secondary hypothesis, additional variables were used. Firstly, from the International Child Abuse Screening Tool, the variables of neglect, sexual abuse and psychological abuse were used. Furthermore, from the Alabama Parenting Questionnaire the parental involvement variable was used. Moreover, from the Resilience Scale of Adults, the family connectedness variable was also used. Ultimately, some additional variables was created for the questionnaire of Ukraine such as parental warmth, parental monitoring and safe physical environment.

Planned Analysis

For the hypothesis 1 a regression model will be used to examine if the risk factors (domestic violence, mental health problems, bullying, victimization, direct conflict exposure, indirect conflict exposure) could predict school dropout tendency. The independent variables (domestic violence, mental health problems, bullying, victimization, direct conflict exposure, indirect conflict exposure) will be used at Time 1, and the dependent variable will be used in

Time 2. Additionally, for the hypothesis 2 to 5 a moderation analysis will be used to examine the effect of the protective factors (safe psychosocial environment, school connectedness) in the relationship between risk factors and school dropout tendency. The moderators will be used in Time 1 and Time 2. Finally, for a secondary hypothesis a stepwise regression will be used to examine which other contextual and individual risk factors and protective contextual factors could relate to school dropout tendency. The contextual and individual risk factors and protective contextual factors will be used in Time 1 as independent variables and school dropout tendency will be used in Time 2, as dependent variable. The same analysis will be used separately for the districts close to the conflict area (Donetsk, Luhansk) and the districts far from the conflict areas.

Results

First, before testing the assumptions, the means and standard deviations of the variables used in the primary hypotheses were calculated at Time Point 1 and Time Point 2 (Table 2).

Table 2

Means & Standards Deviations for Time Point 1 and Time Point 2

Variables	Means Time Point 1	Standard Deviations Time Point 1	Means Time Point 2	Standard Deviations Time Point 2
Domestic Violence	1.5041	1.19569	1.6239	1.40837
Mental Health Problems	1.3375	0.27206	1.4019	0.32282
Bullying	1.1476	0.36734	1.1431	0.35205
Victimization	1.3695	0.47226	1.3274	0.44913
Direct Conflict Exposure	1.6784	0.54894	1.7184	0.54518

Indirect Conflict Exposure	2.4309	0.77614	-	-
School Connectedness	2.1985	0.46433	2.2004	0.49700
Safe Psychosocial Environment	2.3957	0.49465	2.3556	0.52336
School Drop Out Tendency	1.6351	0.71916	1.6587	0.72749

The assumptions for the regression model were checked. A multiple regression was used to identify if risk factors such as domestic violence, mental health problems, bullying and indirect and direct conflict exposure can lead Ukrainian adolescents to think about dropping out of school dropout. Domestic violence, mental health problems, bullying, victimization and indirect and direct conflict exposure were used as independent variables and school dropout as dependent variables. The final multiple regression model explain approximately the 3% of the variance of School Dropout Tendency $F(6,1882)=11,515$, $p<0,001 R^2= 0,035$ and $R^2 \text{ adjusted}= 0,032$. The final model shows only two of the predictors, mental health problems ($B=0,406$, $p<0,001$) and direct conflict exposure ($B=0,066$, $p=0,035$) could predict School Dropout Tendency (Table 3).

Table 3***Multiple Regression Coefficient***

Predictors	B	SE	Beta	t	Sig
Domestic Violence	0.008	0.014	0.014	0.596	0.551
Mental Health Problems	0.406	0.073	0.147	5.577	<0.001
Bullying	0.095	0.052	0.046	1.848	0.065

Victimization	0.012	0.042	0.008	0.291	0.771
Direct Conflict Exposure	0.066	0.031	0.049	2.109	0.035
Indirect Conflict Exposure	0.023	0.022	0.024	1.034	0.301

For the statistically significant factors, mental health problems and direct conflict exposure, we want to examine the mediator effect of two protective factors, school connectedness and safe psychosocial environment in school dropout tendency. For that reason, we did a moderation analysis. Firstly, to run the model, we centered the variables. In Model 1, we included only the two significant risk factors from the previous analysis, mental health problems and direct conflict exposure. In Model 2 we introduced the two protective factors, school connectedness and safe psychosocial environment. Finally in Model 3 we included the interactions, school connectedness * mental health problems, school connectedness * direct conflict exposure, safe psychosocial environment * mental health problems, safe psychosocial environment * direct conflict exposure. Model 1 included only significant risk factors identified in previous analyses, resulting in a modest explanatory power with an R-squared value of 0.034. In Model 2, the addition of protective factors significantly improved model fit (R-squared = 0.081, R-squared = 0.047, F(2, 1907) = 48.620, p < 0.001). However, Model 3, which introduced interactions between protective and risk factors, did not yield further improvement in model fit (R-squared = 0.081, R-squared = 0.001, F(4, 1903) = 0.365, p = 0.834) (Table 4).

Table 4***Moderator Analysis***

Model	Variables Included	R	R Square	Adjusted R Square	Std. Error of the estimate
		0.184	0.034	0.033	0.71678

Model 1	Include: Mental Health Problems, Direct Conflict Exposure					
Model 2	Include: School Connectedness, Safe Psychosocial Environment	0.285	0.081	0.079	0.69954	
Model 3	Include: school connectedness * mental health problems, school connectedness * direct conflict exposure, safe psychosocial environment * mental health problems, safe psychosocial environment *	0.285	0.081	0.078	0.70001	

Model	Variables Included	R Square Change	F Change	df1	df2	Sig. F Change
Model 1	Mental Health Problems, Direct Conflict Exposure	0.034	33.399	2	1909	0.000
Model 2	School Connectedness, Safe Psychosocial Environment	0.047	48.620	2	1907	0.000
Model 3	school connectedness * mental health problems, school connectedness * direct conflict exposure, safe psychosocial	0.001	0.365	4	1903	0.834

environment *
mental health
problems, safe
psychosocial
environment *

Moreover, as we observe in Table 5, in Model 3 the variable Direct Conflict Exposure exhibited a significant positive association with School Dropout Tendency ($B=0.067$, Beta=0.050, $t=2.228$, $p=0.026$), similarly with Mental Health Problems ($B=0.300$, Beta=0.109, $t=4.566$, $p<0.001$). In model too, we observe that Safe Psychosocial Environment displays a significant negative association with the School Dropout Tendency ($B = -0.191$, Beta = -0.137, $t = -5.461$, $p < 0.001$), similarly with School Connectedness ($B = -0.181$, Beta = -0.123, $t = -4.813$, $p < 0.001$). In model 3, there is no statistically significant interaction between Mental Health Problems and Safe Psychosocial Environment, Mental Health Problem and School Connectedness, Direct Conflict Exposure and Safe psychosocial Environment and Direct Conflict Exposure and School Connectedness.

Table 5***Regression Coefficients for Model 3***

Predictors	B	Std Error	Beta	t	Sig
Direct Conflict Exposure (Centered)	0.067	0.030	0.050	2.228	0.026
Mental Health Problems (Centered)	0.300	0.066	0.109	5.566	0.000
Safe Psychosocial Environment (Centered)	-0.191	0.035	-0.0137	-0.5461	0.000

School Connectedness (Centered)	-0.181	0.038	-0.123	-4.813	0.000
Mental Health Problems*	0.087	0.127	0.018	0.682	0.495
Safe Psychosocial Environment					
Mental Health Problems *	-0.128	0.135	-0.025	-0.951	0.342
School Connectedness					
Direct Conflict Exposure *	0.008	0.060	0.003	0.135	0.893
Safe Psychosocial Environment					
Direct Conflict Exposure *School Connectedness	0.041	0.064	0.026	0.639	0.523

Furthermore, we want to explore which factors could predict School Dropout Tendency. We create three models with contextual risk factors, individual risk factors and contextual protective factors. Firstly, a stepwise regression analysis was used to identify which contextual risk factors could predict school dropout tendency. Direct conflict exposure, indirect conflict exposure, domestic violence, victimization, neglect, psychological abuse and sexual abuse were used as independent variables and school dropout tendency as the dependent variable. The final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(1,1877)=7,608$, $p<0,001$ $R^2= 0,008$ and R^2 adjusted= 0,007]. The final model shows that both neglect ($B=0.074$, $p=0.001$) and Direct Conflict Exposure ($B=0.051$, $p=0.026$) could predict School Dropout tendency (Table 6).

Table 6***Regression Coefficients for Contextual Risk Factors***

Predictors	B	SE	Beta	t	Sig
Neglect	0.051	0.016	0.074	3.219	0.001
Direct Conflict Exposure	0.048	0.022	0.051	2.231	0.026

Secondly, stepwise regression analysis was employed to determine the specific individual risk factors that could be predictive of the tendency to drop out of school. Depression, Anxiety, substance use, unsafe sexual behavior, PTSD, Conduct Disorder, ADHD, Oppositional- Defiant disorder, Autism and Learning Disabilities were utilized as independent variables and school dropout tendency was the dependent variable. The final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(1,1974)=16,394$, $p<0,001$ $R^2= 0,040$ and R^2 adjusted= 0,037]. The final model shows that Substance Use ($B= 0,157$, $p=0,003$), Depression ($B=0,055$, $p=0,002$), Unsafe Sexual Behavior ($B=0,088$, $p=0,042$) and Learning Disabilities ($B=0,059$, $p=0,043$) could predict School Dropout tendency (Table 7).

Table 7***Regression Coefficients for Individual Risk Factors***

Predictors	B	SE	Beta	t	Sig
Substance Use	0.157	0.052	0.076	2.998	0.003
Unsafe Sexual Behavior	0.087	0.043	0.050	2.035	0.042
Depression	0.055	0.018	0.077	3.090	0.002
Learning Disabilities	0.059	0.029	0.048	2.027	0.043

Furthermore, in order to identify the contextual protective factors for school dropout tendency a stepwise regression was used. Maternal & paternal involvement, maternal & paternal warmth, maternal & paternal monitoring, safe physical school environment, safe psychosocial school environment, family connectedness and school were utilized as independent variables and school dropout tendency was the dependent variable. The final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(1,1930)=40,201$, $p<0,001$ $R^2= 0,040$ and R^2 adjusted= 0,039]. The final model shows that school connectedness ($B=-0,167$ $p<0,001$) and family connectedness ($B=-0,064$, $p<0,001$) could act as protective factors for School Dropout tendency (Table 8).

Table 8***Regression Coefficients for Protective Factors***

Predictors	B	SE	Beta	t	Sig
School Connectedness	-0.167	0.026	-0.153	-6.475	0.001
Family Connectedness	-0.064	0.017	-0.087	-3.696	0.001

Finally, the same analysis (stepwise regression) was used for the districts close to the conflict area (Donetsk, Luhansk) and the districts far from the conflict areas. Firstly, we investigated contextual risk factors. For the districts close to conflict area the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(2,919)=8,106$, $p<0,001$ $R^2= 0,017$ and R^2 adjusted= 0,015]. The final model shows that direct conflict exposure ($B=0,132$, $p=0,003$) and psychological abuse ($B=0,070$, $p=0,019$) could act as contextual risk factors for School Dropout tendency (Table 9).

Table 9***Regression Coefficients for Contextual Risk Factors for the districts close to conflict area***

Predictors	B	SE	Beta	t	Sig
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Direct Conflict Exposure	0.132	0.044	0.098	2.985	0.003
Psychological Abuse	0.070	0.030	0.077	2.352	0.019

For the districts far from the conflict area concerning contextual risk factors, the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(3,963)=8,338$, $p<0,001$ $R^2= 0,025$ and R^2 adjusted= 0,022]. The final model shows that victimization ($B=0,174$, $p<0,001$), direct conflict exposure ($B=0,145$, $p=0,008$) and indirect conflict exposure ($B=-0,069$, $p=0,034$) could affect School Dropout tendency (Table 10).

Table 10

Regression Coefficients for Contextual Risk Factors for the districts far from the conflict area

Predictors	B	SE	Beta	T	Sig
Victimization	0.174	0.050	0.111	3.452	0.001
Direct Conflict Exposure	0.145	0.054	0.087	2.674	0.008
Indirect Conflict Exposure	-0.069	0.033	-0.068	-2.122	0.034

Secondly, we investigated individual risk factors. For the districts close to conflict area the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(2,971)=21,043$, $p<0,001$ $R^2= 0,042$ and R^2 adjusted= 0,040]. The final model shows that Conduct Disorder ($B=0,454$, $p=0,001$) and Oppositional- Defiant disorder ($B=0,122$, $p=0,006$) could act as contextual risk factors for School Dropout tendency (Table 11).

Table 11

Regression Coefficients for Individual Risk Factors for the districts close to conflict area

Predictors	B	SE	Beta	t	Sig
Conduct Disorder	0.454	0.103	0.150	4.423	0.001
Oppositional – Defiant Disorder	0.122	0.044	0.093	2.762	0.006

Moreover, for the districts close to conflict area the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(5,995)=14,349$, $p<0,001$ $R^2= 0,067$ and R^2 adjusted= 0,063]. The final model shows that Oppositional- Defiant disorder ($B=0,183$, $p=0,001$) and Learning Disabilities ($B=0,207$, $p=0,001$), unsafe sexual behavior ($B=0,034$, $P=0.001$), Anxiety ($B=0,095$, $p=0,007$) and Autism ($B=-0,140$, $p=0,010$) could affect for School Dropout tendency (Table 12).

Table 12

Regression Coefficients for Individual Risk Factors for the districts far from the conflict area

Predictors	B	SE	Beta	t	Sig
Oppositional – Defiant Disorder	0.183	0.045	0.139	4.018	0.001
Learning Disabilities	0.207	0.059	0.115	3.510	0.001
Unsafe Sexual Behavior	0.334	0.097	0.106	3.443	0.001
Anxiety	0.095	0.035	0.089	2.684	0.007
Autism	-0.140	0.054	-0.086	-2.582	0.010

Thirdly, we investigated protective factors. For the districts close to conflict area the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(2,935)=17,494$, $p<0,001$ $R^2= 0,036$ and R^2 adjusted= 0,034]. The final

model shows that School Connectedness ($B=-0,187$, $p<0,001$) and Safe Physical Environment ($B=-0,153$, $p=0,004$) could affect School Dropout tendency (Table 13).

Table 13***Regression Coefficients for Protective Factors for the districts close from the conflict area***

Predictors	B	SE	Beta	t	Sig
School Connectedness	-0.187	0.056	-0.119	-3.304	<0.001
Safe Physical School Environment	-0.153	0.052	-0.105	-2.923	0.004

Finally, concerning protective factors for the districts far from the conflict area the final stepwise regression model indicates a significant proportion of the variance in school dropout tendency [$F(3,997)=15,394$, $p<0,001$ $R^2= 0,044$ and R^2 adjusted= $0,042$]. The final model shows that School Connectedness ($B=-0,150$, $p=0,010$), Maternal and Paternal Monitoring ($B=-0,158$, $p=0,003$) and Safe Psychosocial Environment ($B=-0,120$, $p=0,024$) could affect School Dropout tendency (Table 14).

Table 14***Regression Coefficients for Protective Factors for the districts far from the conflict area***

Predictors	B	SE	Beta	t	Sig
School Connectedness	-0.150	0.058	-0.96	-2.578	0.010
Maternal & Paternal Monitoring	-0.158	0.053	-0.101	-3.002	0.003
Safe Psychosocial Environment	-0.120	0.053	-0.080	-2.265	0.024

Discussion

Firstly, from the Hypothesis 1, only two out of five risk factors seem to predict the School Dropout Tendency. These two factors are mental health problems and direct conflict exposure. Literature confirms these findings. According to literature, students who with mental health problems such as ADHD, Conduct Disorder and Depression is more likely to drop out of school (Dupéré et al., 2018; Hjorth et al., 2016; Tramontina et al., 2011). Furthermore, according to literature, there are researches that indicate that students who experienced conflict directly could drop out the school (Di Maio & Nisticò, 2019).

Moreover, according to Hypothesis 1, despite the fact that domestic violence, bullying, victimization and indirect and conflict exposure had linked to School Dropout Tendency, the absence of significant association in this study suggests a need for deeper exploration. First of all, it appears that a large portion of the research on the variables influencing school dropout rates is written in a western perspective (Fried et al., 2016; Hjorth et al., 2016; Sofuoğlu et al., 2016). Moreover, there are research concerning totally different cultural contexts such as Nairobi (Abuya et al., 2013) or South Korea (Lee et al., 2020), but it is possible that the unique sociocultural landscape of Eastern Ukraine play an important role in the way the above factors influence the School Dropout Tendency.

According to Krestovska (2018), ever since 2014, the lives of numerous children living in non-government-controlled areas in Eastern Ukraine have been affected as a result of continuing conflicts. Also, some schools like kindergartens and other facilities of children were used for military purposes. Especially, in some areas like Donetsk and Luhansk along the contact line, there were schools that demolished or damaged. Those areas are included in our sample, and they were severely affected by conflicts. As a result, in many cases the children's right to an education was extremely invaded. Lastly, conflicts and its consequences affected people overall wellbeing because they didn't have access to key necessities such as water, housing, hitting, lighting, and health services (Júnior et. al, 2022). As a result, School

Dropout Tendency could have been more affected by primary life needs rather than secondary factors such as domestic violence, bullying, victimization and indirect conflict exposure.

Adding to the aforementioned results, we continued with hypothesis 3 and 5, to examine if some protective factors like safe psychosocial environment and school connectedness could affect the relationship between mental health problems and school dropout tendency and direct conflict exposure and school dropout tendency respectively. The results suggest that although protective variables could influence the likelihood of dropping out of school, the interaction between protective and risk factors do not significantly increase the model's predictive ability. Therefore, while it is important for school dropout studies to take into account both risk and protective factors, it is important to be careful when assuming synergistic effects between them. The addition of protective factors was shown to significantly improve the model. This finding highlights the significance of protective factors in predicting school dropout tendency beyond the influence of risk factors alone. These findings underscore the complexity of school dropout phenomenon and the need of comprehensive approaches that account both risk and protective factors.

Moreover, in secondary hypothesis we tried to explore alternative factors that could affect School Dropout Tendency. As a result, we created three different models. The first one concerns contextual risk factors; the second one refers to individual risk factors and the third to contextual protective factors. Even though the new models that we created have also low predictability, there are some statistically significant factors.

According to model one that refers to contextual risk factors, neglect is a statistically significant factor. Based on literature neglect was linked to school dropout tendency in different sociocultural context. Firstly, according to Choe (2021) in South Korea, there was a direct and long-term correlation between child maltreatment and a decline in peer and

student-teacher interactions, as well as an increased likelihood of school dropout.

Furthermore, a research in Izmir included children in age 11-16, indicated that children who drop out of school suffered by high rates of neglect in the family context (Sofuoğlu et al., 2016). Finally, one more research in Japan in high- school showed that the experience of intense problems such as neglect could have an impact on school dropout (Tabuchi et al., 2018). Another contextual risk factor that affects school dropout tendency is direct conflict exposure. Based on a study in Rwanda, armed violence affected educational outcomes, by at least one year out of school of the individual's education during their schooling age (Guariso & Verpoorten, 2019). Different research in Ivory Coast showed that children that reached the timeframe to be enrolled in school, if they lived in conflict areas they had a 10 %lower probability of being enrolled in school (Ouili, 2017). Finally, a study that investigated how the conflict between Ethiopia and Eritrea in 1998–2000 continues to affect the development of human capital accumulation showed that early childhood conflict exposure raises the likelihood of grade repeat in both boys and girls as well as school dropout, particularly in males. (Weldeegzie, 2023).

In the model 2 we tried to figure out which individual risk factors could affect school dropout tendency. The first factor was substance use. Based on systematic reviews in literature substance use is linked with school dropout. Results from the research Patrick (2016) showed that on the one hand substance use is predicted by school dropout. On the other hand, other authors like Fagan & Pabon (1990) support that the relationship of these two phenomena is the opposite and school dropout is caused by substance use. A third possible way to approach the relationship between school dropout and substance use is how is demonstrated in the research Townsend et al. (2007), as not casual but rather both of them being caused by a third variable. To sum up the relationship between school dropout and substance use needs further investigation from future research. The second individual risk

factor that affects school dropout is unsafe sexual behavior. For this factor literature is limited. Individuals are most likely to drop out of school based on the Green and colleagues (2019) research if they have the following criteria, a substance use disorder diagnosis, having a criminal arrest, pregnancy, and sexually transmitted disease for both males and females. However the factor of unsafe sexual behavior seems to be affected a lot from the substance use factor (Anyanwu & Tamwesigire, 2023). To conclude future research can maybe focus on the correlation of the two factors and how they affect school dropout. A third factor that seems to affect school dropout is depression. Research from literature that concern depression and school dropout are more obvious. From upper secondary education depressive symptoms are related to school dropout as shown in studies (Askeland et al., 2022 ; Butterwort & Leach, 2017; Fletcher, 2010). According to Dupéré et al, 2018 research shows that almost one dropout out of four had clinically significant depressive symptoms in the 3 months before dropping out of school. A final factor that seem to affect school dropout tendency is Learning Disabilities. A research indicates that learning difficulties, low socioeconomic position, and—most importantly—the interplay between these two factors raise the risk of high school dropout for children who face these obstacles (Ingrum, 2006). Finally, according to another research students with learning disabilities (LD) are more likely to drop out of school because they are far more likely than their peers without disabilities to have social skills issues and participate in risky behaviors (Svetaz et al., 2000).

In the model 3 we are trying to figure out which factors could act as protective factors for school dropout. The first factor was school connectedness. According to literature, school connectedness and some of its aspects seem to act protectively against school dropout. According to research examining whether or not school connectedness (supportive relationships with adults at school and participation in school clubs) would be positively associated with high school graduation, only club participation may present a chance to

reduce the risk of school dropout for maltreated youth (Lemkin et al., 2018). Another study found that having a caring adult at school and feeling linked to the school reduced the likelihood of dropping out, using a sample of 638 tenth graders (Orpinas & Raczyński, 2016). Lastly, the findings of a study including 1,743 Latino teenagers indicated that classroom behavioral engagement of Latino students acted as a mediator between the large indirect effects of school connectivity and school valuing on high school completion and postsecondary enrollment (Niehaus et al., 2016). The final factor refers to family connectedness. According to the literature, as far as we know, this factor has not been studied in conjunction with school dropout. Although Model 3 has low predictive value, future research could focus on these 2 factors to investigate whether they act protectively in a different sociocultural context.

Ultimately, we ran the above three models separately for districts near the conflict area and for the districts far from the conflict areas. For the districts close to conflict areas, concerning contextual risk factors, we found two statistically significant variables which could affect school dropout tendency, direct conflict exposure as previously, and psychological abuse. The result of a study conducted in Izmir on children aged 11, 13 and 16 revealed that in comparison with students who do not drop out of school, student who dropout suffered from greater rates of psychological and physical abuse and neglect (Sofuoğlu et al., 2016). For the districts close to conflict areas, concerning contextual risk factors, we found two statistically significant variables which could affect school dropout tendency. The first factor was direct conflict exposure as previously. This finding points to the importance of the impact of armed conflicts on the lives of children in Ukraine. The second factor was indirect conflict exposure. This finding indicates the importance of the impact not only of direct exposure to armed conflict but also of indirect exposure, especially in areas far from the conflict area. Turnip et al.(2010) highlights the significance of conflict's impact not only

on the people who located near the conflict but also on the people who lived in proxiamal aereas. Lastly, a third contextual risk factor, which could affect school dropout tendency was victimization. Victimization had linked with school dropout according to literature (Mengo & Black, 2016; Paguero et al., 2021).

Furthermore, concerning individual risk factors, for the districts near to conflict area, we found two statistically significant variables which could affect school dropout tendency. These variables were Conduct Disorder and Oppositional Defiant Disorder. A study including 364 children aged 6-9 who presented conduct problems revealed that while the existence of depressive symptoms did not predict school dropout, the initial severity and rate of conduct problems did (Law et al., 2023). For the districts far from conflict areas we found five significant variables which could affect School Dropout Tendency. The three of them were Oppositional- Defiant Disorder, Learning Disabilities and Unsafe Sexual Behavior similarly with our previous findings. An additional statistically significant variable was Anxiety. According to literature, anxiety has been associated with school dropout (Syvertsen et al., 2021). A final factor, which could affect school dropout tendency but in a protective way, was autism. A characteristic of children with autism is their adherence to repetitive routines, which when interrupted can result in disruptive behavior (Reese et al., 2005). For many children with autism, school is an important element in their program. Furthermore, one of the main ways that autistic students get the necessary educational and therapeutic interventions is through attendance at school (Jarbou et al., 2022). Therefore, this specific characteristic of autism about routines may explain the protective function of autism for school dropout tendency.

Finally, concerning protective factors for the districts close to the conflict area, there were 3 statistically significant variables, school connectedness as we mentioned previously and safe physical school environment. For the districts close to conflict the elements that

were included in safe physical environment such as accessibility of facilities, temperature, safety, and activities have a substantial impact. For the districts far from the conflict area, there were 3 statistically significant variables that could affect school dropout tendency. These variables were school connectedness and safe psychosocial environment as we mentioned previously, and maternal and paternal monitoring. The findings highlight the key role of school connectedness as a protective factor for school dropout and the importance of family involvement in this process.

In order to guarantee the right to education for millions of children's living in conflict- affected areas, this master thesis emphasizes the necessity for research to provide information on the effects that conflicts have on education. The results provide insightful information for future study and intervention efforts in Eastern Ukraine. Neglect and direct conflict exposure could act as contextual risk factors. Substance use, unsafe sexual behavior, depression and learning disabilities could act as individual risk factors. Finally, school connectedness and family connectedness could act as protective factors.

Furthermore, concerning contextual risk factors for the districts close to conflict area, there were 2 statistically significant variables, direct conflict exposure and psychological abuse, whilst for the districts far from the conflict area, the statistically significant variables were victimization, direct conflict exposure and indirect conflict exposure. Additionally, for the districts close to conflict area, the statistically significant variables were Conduct Disorder and Oppositional- Defiant Disorder. For the districts far from the conflict area the variables that could affect school dropout tendency were Oppositional- Defiant Disorder, Learning Disabilities, Unsafe Sexual Behavior, Anxiety and Autism. Finally, concerning protective factors, for the districts close to the conflict area there were 2 statistically significant factors, school connectedness and safe physical school environment. Ultimately, for the districts far from the conflict area, there were 3 variables that could affect school

dropout tendency, school connectedness, maternal and paternal monitoring, and safe psychosocial school environment.

In order fully comprehend the complex nature of school dropout tendency, researchers should base on the results of this study and use other methodologies such as inquiry, mixed-method approaches, and longitudinal designs.

Limitations

There are some limitations should be considered. First of all, in our research, a self-report questionnaire for sensitive topics such as neglect, domestic violence, mental health problems etc. was used. Self-report questionnaire could induce response biases, so the results must interpret with caution. Furthermore, a second major limitation concerning sample characteristics. In our study participated students voluntarily, so the sample may not be entirely representative of the broader population in Eastern Ukraine. Moreover, a third major limitation is that Eastern Ukraine is an extremely specific context with unique socio-cultural characteristics. As a result, the findings of this study may not be applicable to other conflict-affected regions or to different cultural contexts. Finally, in case any student did dropout from Time Point 1 to Time Point 2, we would not able to consider the factors that influenced them through our model.

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