

Peer reviewed:

## **Impact of Missile Attacks on Israeli Youth Health and Well-Being**

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**Abstract:** Negative implications of exposure to violence on the health and well-being of youth have been observed and studied both throughout the globe and in Israel in particular. Adolescents in western Negev have been exposed to such violence from missile attacks for over a decade. Nevertheless, implications of such prolonged exposure have not been fully studied. **Objective:** To investigate implications of exposure to intense periods of missile attack on the health and well-being of adolescents in the town of Ofakim in western Negev, Israel's southern region bordering Gaza. **Methods:** A focus group was conducted among youth in Ofakim following the Israeli Defense Forces' (IDF) response "Protective Edge" to continued attacks from July to August in 2014. **Results:** Focus group participants reported high levels of stress during the operation that resulted in an increase of tobacco use (e.g. nargila and cigarette smoking) as well as significant changes in eating and sleeping patterns. The Ofakim resilience center served as a shelter for participants, providing them with both physical and emotional comfort. The existence of such a "shelter" made a significant contribution to adolescents' resilience. Exposure to violence has a significant impact on the health and well-being of young people. A secure, receptive facility that provides trust and support can serve as an important moderator of the negative implications of stressful conditions that young people endure during violent and emergency conditions. From the results reported in this article, further research is needed to fully assess implications of long term effects of stress conditions on youth in western Negev as well as to evaluate the impact of the resilience center on the youth and other residents of Ofakim.

**Keywords:** Well-being; youth; trauma; resilience

Exposure to terror has implications for an individual and a community (Bogen & Jones, 2006; Gelkopf, Berger, Bleich, & Silver, 2012; Norris et al., 2002; Ursano et al., 2010). Empirical studies have investigated implications of short and long term exposure to terror on the general population in Israel (Bleich, Gelkopf, & Solomon, 2003; Bleich, Gelkopf, Melamed, & Solomon, 2006; Gelkopf, Solomon, & Bleich, 2013) and the US following the 9/11 attacks (Bonnano, Galea, Bucciarelli, & Vlahov, 2006; Galea et al., 2002; Schuster et al., 2001). Implications of such exposure include distress, anxiety, depression, increased levels of substance abuse, impaired sense of safety, functional impairment, Post-Traumatic Stress (PTS) and Post Traumatic Stress Disorder (PTSD) symptoms (Bleich et al., 2006; Bogen & Jones, 2006; Dekel & Nuttman-Shwartz, 2009; Gelkopf et al., 2012; Ursano et al., 2010).

A few studies provide some insight regarding implications of long-term exposure to missile attacks on Israeli civilians living in the south of Israel. Besser and Neria (2009) found individuals from the targeted area of Otef Gaza, bordering Gaza, with high rates of PTSD symptoms as well as decreased life satisfaction. Dickstein et al. (2012) reported significant negative implications on the psychological functioning of Israelis exposed to prolonged missile attacks. The negative implications of prolonged exposure to missile attacks on civilians including youth in the Negev are supported by other studies as well (Besser, Neria, & Haynes, 2009; Lahad & Leykin, 2010; Stein et al., 2013). Berger, Gelkopf, and Heineberg (2012) examined implications of missile exposure on teens in the highly exposed city of Sderot; study findings revealed 43.5% of those examined met PTSD criteria. A four-year longitudinal study also found exposure to recurrent missile attacks resulted in increased problem behavior among youth in Otef Gaza (Heinrich & Shahr, 2013).

## **Method**

The focus group is a form of qualitative research that asks a group of people about their perceptions, beliefs, and attitudes toward an issue or item. The method is well documented in the social sciences (Krueger, 1994; Linhorst, 2002; Morgan, 1988a; Morgan, 1988b). A broad spectrum of voices and ideas within the group can contribute much to understanding the explored phenomenon (Somer, Buchbinder, Peled-Avram, & Ben-Yizhack, 2004). Krueger (1994) and Linhorst (2002) note the importance of creating an open, accepting, and non-judgmental atmosphere during group discussion to give all participants the opportunity to express their thoughts without concern of being labeled or condemned by other group members.

## **Participants**

Fifteen participants, ages 14 to 20, took part in a focus group conducted at the Ofakim Resilience Center in March, 2016. The group was conducted by a trained moderator and an undergraduate social work student. The participation was voluntary and informed consent forms were signed by parents or by participants themselves over the age of 18.

## **Results**

Most participants reported an increase of stress during the 2014 IDF military operation. During that period of nearly two months, warning alarms were heard very often, forcing participants to run for shelter day and night. Many houses in Ofakim lack a concrete or steel-fortified room within the house; therefore, participants reported the need to run long distances for public shelter. The constant state of alert severely disrupted adolescents' daily routine. Moreover, due to heavy

bombardment from Gaza, schools were shut down and outdoor activities were dangerous and restricted. Youth in Ofakim needed to stay at home, disconnected from friends and their daily routine, causing much boredom. Also, participants reported increased stress with family and relatives that resulted in tension and arguments. Stress was exacerbated by continuous exposure to news, media, and uncensored materials in the new social media (e.g. Facebook, Twitter) as well.

**"Shelter Parties"**. Some participants reported participation in "shelter parties", as referred to by the group members. A group of teens would gather in an abandoned shelter and turn the place into a party zone. Since these parties were held within shelters, participants could stay inside and avoid the nuisance of having to run for shelter whenever the alarm went on. In the night time, participants of these "parties" would play loud music, which was dimmed by the thick walls of the shelter, and consume alcohol and tobacco (mostly smoking nargila). In the day time, tired from the night party activities, adolescents would sleep in the shelter. This routine enabled teens to minimize the impact of siren alarms while also taking turns to go out of the shelter for restocking supplies such as snacks, alcohol and tobacco.

### **Changes in sleeping and eating patterns**

Most group members reported sleep disturbances during the operation due to the constant state of alert. Moreover, the frequent alarm at night forced people to run for shelter in night clothes. It took participants much time for the adrenaline rush caused by the alarm to subside, enabling the resumption of night sleep. Repeated rounds of alarm were heard many times at night, preventing sleep.

Many participants reported changes in eating behavior during the IDF military operation. In some cases, the constant state of alert was followed by physical symptoms including stomachaches and nausea, resulting in decreased appetite and weight loss. Moreover, some participants reported their families refrained from cooking since they feared having insufficient time to turn off the gas when the siren was heard. Other participants reported increased food consumption as a means of stress relief. One group member noted that, following night alarms, the family would gather in the living room and eat snacks in order to calm down an adrenaline

rush before night sleep. Subsequently, these participants reported weight gain during the operation.

### **Ofakim Resilience Center**

Participants perceived the resilience center as a "safe haven", both physically and emotionally.

As mentioned, many houses in Ofakim are poorly or not at all fortified; therefore, adolescents preferred spending most of their time within the center, which has a fortified room. A supporting, trustful and communal atmosphere within the center led many teens to spend a significant amount of their time there.

Staff members of the resilience center are adults of the community that have undergone Psychological First Aid training by the Israeli Trauma Coalition, which is in charge of Otef Gaza's resilience centers. A positive, supportive environment in the center has helped youth deal with the stressful situation. During the operation, schools were shut down by the Home Front Command (Israel, 2015). This situation resulted in an abundance of free time for adolescents that led, many times, to increased involvement in problematic, risk-taking behaviors. To counter this condition, in part, center staff recruited youth to help in various missions such as making phone calls and assisting civilians referred to the center. In some cases, teens who were confident enough joined the adult staff in going out to shelters around the town for assessing community needs. Such involvement supported a sense of meaning among adolescents while giving them the opportunity to spend time in a positive and productive way.

## **General Discussion**

Increased stress resulting from terror exposure, as reported by study participants, is congruent with other research studies on the issue (Besser & Neria, 2009; Besser, Zeigler-Hill, Weinberg, Pincus, & Neria, 2015; Eshel & Kimhi, 2011; Pat-Horenczyk et al., 2007; Pat-Horenczyk, Yeh, Cohen, & Schramm, 2014). The full scope of implications to such prolonged exposure to missile attacks requires further examination

Study participants reported increased exposure to television, radio, and other media sources during the operation. Such exposure, found by Soffer-Dudek and Shahar (2010), significantly increased stress among youth, resulting in possible vicarious traumatization. Due to negative implications of intensive media exposure on the health and well-being of youth, current Psychosocial First Aid (PFA) programs recommend limiting such exposure to a certain quota per day (Halpern & Tramontin, 2007).

## **Terror exposure and substance abuse**

A number of studies report an increase of substance use following an attack (Fullerton, Mash, Benevides, Morganstein, & Ursano, 2015; Grieger, Fullerton, & Ursano, 2003; Vlahov et al., 2003). Schiff (2006) and Schiff et al. (2006) found a positive correlation between exposure to attack and alcohol consumption among Israeli youth. Pat-Horenczyk et al. (2007) examined implications of terror exposure on Israeli teens, and found that terror exposure increases levels of risk taking behavior among adolescents. Moreover, the researchers found a "dose response" effect, such that greater exposure to terror results in higher levels of risk taking behavior. Also, Schiff and Fang (2014) found a positive correlation between exposure to multiple attacks and

substance use among Israeli youth.

### **Ofakim' Resilience Center**

Study participants reported the resilience center to be a "safe haven" for their safety and emotional needs. The importance of such a facility, especially during emergency conditions, stems from several reasons. First, literature emphasizes the importance of maintaining routine for children and youth during emergencies (Halpern & Tramontin, 2007; Pat-Horenczyk et al., 2007). Familiar schedules and activities serve as a stable foundation in the face of uncertainty and confusion that are core aspects of emergency situations. Since schools were shut down and other suitable activities were cancelled, the center in Ofakim helped adolescents reconstruct a routine that contributed to minimizing negative implications of terror exposure. Second, the center includes reliable adults familiar to the teens. Moreover, such staff members have undergone PFA training and were able to help teens with positive stress management strategies. Harel-Fisch et al. (2010) mentions "a significant adult" can play an important role in moderating negative implications of terror exposure among youth. Resilience center staff members were perceived by participants as "significant adults" contributing to resilience among the youth. A third aspect relates to the substantial presence of adolescents in the center during the operation that led them to be involved in activities and initiatives aimed at supporting the local community. Such community involvement and commitment contributed to strengthening "a sense of togetherness" among participants. This factor, reported in several studies, is a significant resilience factor for addressing prolonged exposure to terror attacks (Gelkopf et al., 2012; Hobfoll et al., 2009; Kaplan, Matar, Kamin, Sadan, & Cohen, 2005). Finally, serving as helpers in their community provided participants with a sense of meaning and designation. Current

literature notes that a sense of meaning serves as a buffer from various adversities (Dekel & Nuttman-Shwartz, 2009; Solomon & Berger, 2005; Solomon, Berger, & Ginzburg, 2007).

Moreover, a recent study found a sense of meaning as well as involvement in social activities to be negatively correlated with suicidal ideation among adolescents (Aviad-Wilchek, Ne'eman-Haviv & Malka, 2016).

### **Study Limitations**

This exploration has few limitations. It was conducted in one development town in the Negev, thus a comparison among other communities in the region was not possible. An additional study is required to compare different types of communities (e.g. urban and rural) as well as different levels of exposure to missile attacks. Also, the study was conducted approximately 1.5 years after the end of operation "Protective Edge". Perhaps, if conducted sooner, different findings would have been generated.

**Compliance with Ethical Standards Funding:** This study was not funded by an external source.

**Conflict of Interest:** I. Pruginin and I. Bergman declare that they have no conflict of interest.

**Ethical Approval:** All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000.

**Informed consent:** Informed consent was obtained from all individual participants included in the study

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